

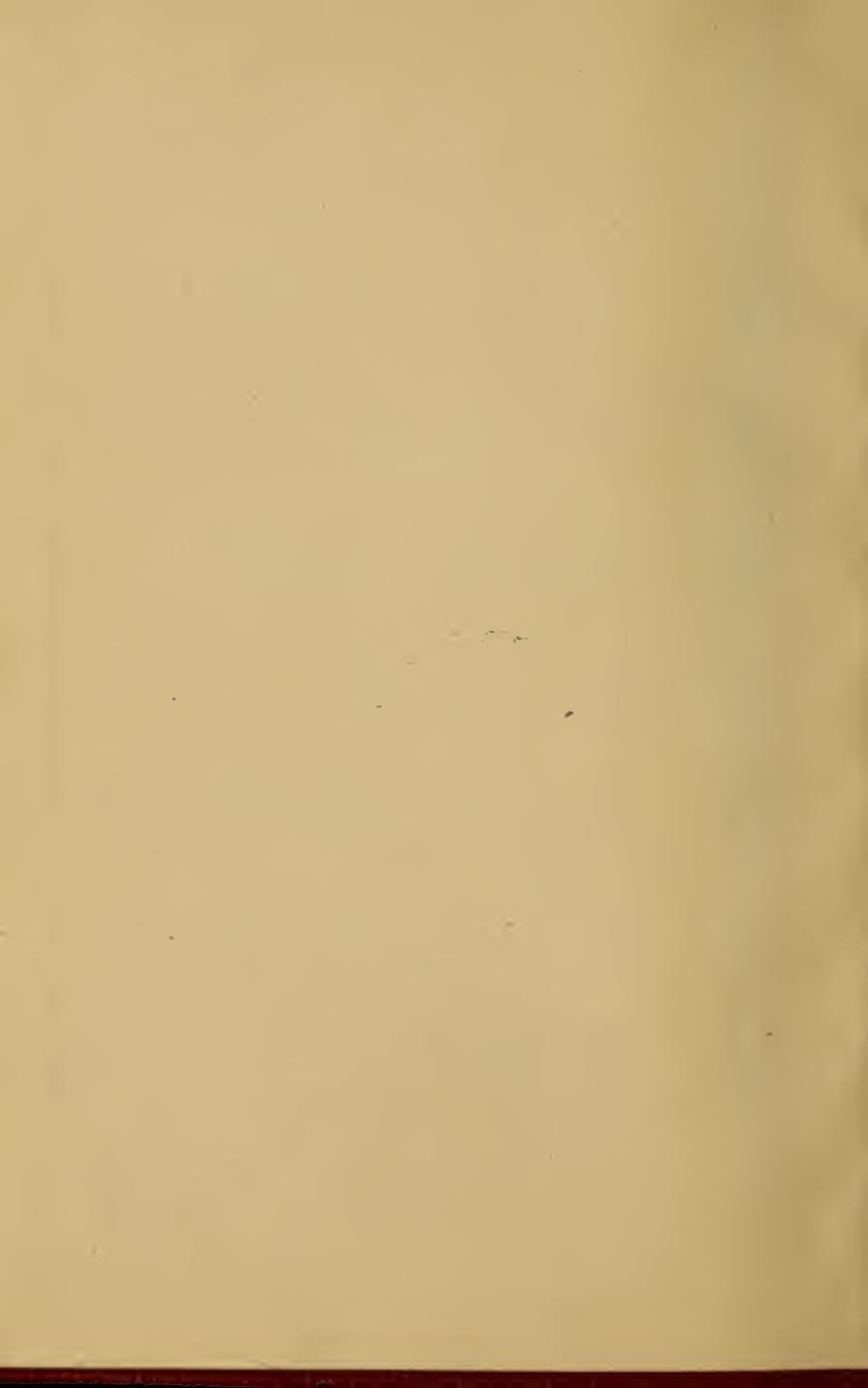
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HOW TO
STUDY CHARACTER;
OR,
THE TRUE BASIS
FOR
THE SCIENCE OF MIND.

INCLUDING A REVIEW OF

ALEXANDER BAIN'S CRITICISM OF THE PHRENOLOGICAL
SYSTEM.

BY

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THOMAS A. HYDE.



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INTRODUCTION.

THIS essay, which appeared in a condensed form in the *Phrenological Journal*, had its origin while the author was a member of the senior class of Harvard University in 1881. The Professor of Psychology furnished a list of topics to the class, requesting the members to select one or more as a subject for a philosophical thesis. Among the topics enumerated in the schedule were: Phrenology and Analysis of Types of Character. The author chose these two subjects and combined them into one, under the title, "The True Basis for the Science of Mind and Study of Character." He was influenced in his choice partly by the circumstance that many statements regarding Phrenology were continually being made, not only in class-room, but also outside, by students and professors, which he knew, from his acquaintance with Phrenology, to be unjust, unreasonable, unwarrantable, and untrue. The essay, as now published, is the same as the original, in design, style, and matter, with some additions. These additions are mainly to be found in the part devoted to Professor Bain. All of the section devoted to the "Analysis of Types of

Character" is not to be found in the "True Basis," but only the general outline; and one type discussed somewhat in detail, "The Oratorical Type," as an example of the utility of studying character according to the principles advocated in this essay. The remarks on a True System of Elocution and Oratory, which occur in several parts of the essay, together with other philosophical principles, will be found fully elaborated in a System of Elocution and Oratory, based upon the Analysis of the Human Constitution, which the author is writing. The essay, when read before the Professor of Psychology, was favorably commented upon by him, and he declared that he believed there was much truth in Phrenology.

The scope and aim of the essay is wide and independent. The author has no especial partiality for Phrenology. His interest in it has been purely one of truth—the desire to obtain the best information possible upon a science which he considers next in importance to a knowledge of God, the science of Mind and Character. Having studied, nevertheless, the three great departments of the science of Anthropology, the Psychological, Phrenological, and Experimental schools of philosophy, it has been his aim to weigh carefully the philosophical principles underlying each, and their importance in founding a science of Mind and Character; and whatever his decisions have been, they are the result of an impartial spirit.

The essay is not designed, however, to embrace the details of any of these sciences; but rather seizes upon the philosophical principles which, after all, are

the real basis for any science. It assumes, therefore, a knowledge of science and philosophy on the part of the reader which may be rather exacting, but wholly unavoidable. Any obscurity of matter or thought in the essay is due to the necessity for condensation. In such an essay illustrations and quotations must necessarily be few; the whole spirit of the essay is, therefore, that of original reflections and suggestions. A criticism upon Professor Bain has never been given to the public, as far as the author is aware, and he is therefore entirely responsible for the whole mode, method, and spirit of the discussion of Bain's book on the Study of Character. The same might be said of the remarks upon the experimental school, and other comments found in the essay. That the essay may be read with profit, and increase a spirit of earnest longing to know as much as possible of the nature and constitution of Man, is the author's sincere wish.*

THOMAS A. HYDE.

CAMBRIDGE, Mass., Oct. 18, 1883.

* An acknowledgment on the part of the author is due to Mr. H. S. Drayton, editor of *The Phrenological Journal and Science of Health*, for his kindness in examining the proof-sheets and otherwise assisting in the publication of the essay.



HOW TO STUDY CHARACTER;

OR,

THE TRUE BASIS FOR THE SCIENCE OF MIND.

THE study of man, although of the utmost importance and undoubtedly the most interesting of the whole field of human inquiry, has not received the careful consideration it justly merits from those who aspire to be teachers of men.

The poet in the warmth of his imagination, the historian and the novelist with the accuracy of observation, have often described men with their passions, animosities, longings, aspirations, and all the various feelings which make up the characters of men. But their pictures, though vivid, lack the uniformity and distinct analysis which should constitute a science of character. It is truly wonderful that man has occupied so little of the attention of those whose peculiar duty it was to make him a study. The types of human character are so abundant and prominent that it seems hardly credible that the science of character only dates as far back as the eighteenth century, and had its origin with Francis Joseph Gall. True, there were attempts to describe and classify men according

to their dispositions before the days of Gall, but they were so superficial, unsatisfactory, and unscientific as to be unworthy of notice. As far back as human records reach, the human race has always presented types of character unmistakably different from each other. The history of every nation and observation of the men of our time reveal this fact. Geology, which goes back farther than any human record, reveals man as an intelligent being, the tool-maker, and even then showing his great superiority over the brute creation. History is but the record of types of character. There are Nero and Caligula, imbruing their hands in human blood to satisfy a savage propensity, which forms the principal motive in their character. There is Pope Alexander VI., steeped in hypocrisy, reeking with the crimes of incest, poisoning, and murder. There is King John, full of blasphemy, foul with unnatural vices, inconstant, fickle, yielding before the threat of his barons. There is the religious enthusiast, Peter the Hermit, kindling Europe into a blaze of religious excitement, compelling the noble, the powerful, and the weak to leave their homes and engage in a long and desperate crusade. There is Henry VIII., reveling in amatory pleasures. There is Lucretia, even in the face of death, faithful to her marriage vow. There is the philosophic type, buried in deep abstraction—Aristotle, Socrates, and Plato. There is the poetic type—Homer, Virgil, Milton, Shakespeare.

The observation of men of our time reveals the same diversity of types. We have brutal murderers,

Burke and Hare and Pomeroy; religious fanatics, Freeman, Guiteau, and others; sublime poets, Longfellow, Browning, Tennyson. The student of history and observation therefore can not fail to perceive that the human race has ever been divided into well-marked types of character.

METAPHYSICS, DISCURSIVE AND SPECULATIVE.

The neglect to form a science of character is in part attributable to the metaphysical school of philosophy, which has cared more for idle disputations and long-winded discussions upon matters of very little importance. Vain theorizing characterized the systems of philosophers before the time of Gall, who had directed their attention to the study of man. It has been the unsatisfactory state of the science of mind which has retarded the science of character, for as the mind is the foundation of the character, it was necessary that its fundamental organs and functions should have been analyzed; for it is by the fundamental powers singly and in combination that all the types of character are produced.

The metaphysician, whose task it was to accomplish this analysis, has given us nothing but vague generalities. We are struck with feelings of melancholy regret for the sad waste of time and choice intellect, when, surveying the whole field of metaphysical inquiry, we behold nothing but campaigns of endless battles, interminable disputes, hair-splitting distinctions, and the ceaseless warfare of words which have ever been its leading features. For more than

two thousand years the best intellects of every period have been engaged in such intellectual combat with each other, and the field still remains strewn with the sad wrecks of fatalism, materialism, transcendentalism, and pantheism. What absurd and extravagant doctrines have not had their origin in the minds of those who looked to consciousness alone as a guide! After two thousand years of vain speculation, philosophers are still on debatable ground; some maintain that there is an external world, others that no external world exists; some maintain that we think and feel through material organs, others that the mind is ethereal and not connected with the body; others again are divided even upon the fundamental powers of the mind.

"CONSCIOUSNESS" AS A FUNDAMENTAL PRINCIPLE.

The chief faculty through which they derive all their knowledge of the mind has its functional nature still under discussion—I mean consciousness. Some philosophers maintain that consciousness consists of an Ego only, others of a non-ego. Others again assert that the Ego and non-ego are mysteriously combined and act as one. Leaving the dispute as to the function of consciousness, their principal fundamental faculty, still undecided, they carry on long discussions with each other respecting what are fundamental faculties, the consciousness of one philosopher declaring that such and such are fundamental faculties; the consciousness of another philosopher as triumphantly evolving another set of fundamental powers, in oppo-

sition to those of his opponents. Some reduce everything to sensation and permanent possibilities of sensations (J. S. Mill). Others struggle fiercely for innate powers; while others create all the powers which form the characters of men by laws of association, attention, and habit.

The history of philosophy is but a history of a cycle of these disputes. One theory arising in one age and supported by some eminent thinker is popular for a time, then gradually loses its hold upon men and glides into the realm of forgetfulness, to be revived in another age, only to undergo the same painful road of popularity, opposition, and neglect. Metaphysicians have no science of the mind. All their fundamental faculties rest upon the testimony of each individual consciousness, and are subject to its ever-varying changes and fanciful modes. They are not connected with organs. They have no physical seat in brain or body; without a resting-place, devoid of bones and flesh, they have taken up their eternal wanderings through the realm of consciousness, invisible spirits, ghosts of the imagination.

That the systems of mental philosophy are formed upon insecure and conjectural bases, is evident from the fact that no system has maintained its ground for more than a limited number of years. Each age has had its distinguished philosophers with their peculiar views, and the people of that age have looked up to them with awe and respect as the intellectual giants of their time. But scarcely has age begun to dim the power of thought of these representative philosophers,

when some intellectual prodigy evolves a system more in accordance with the time in which he lives, and demolishes the doctrines of his predecessors. Thus mental philosophy is built upon the shifting sands of time, ever changing her fundamental powers, now fixing apparently beyond dispute the laws and principles of mind, then tearing down the fabric so firmly built. The cause of failure of the metaphysical school to establish a science of mind and character is apparent. Each philosopher has endeavored to evolve a science of mind from his own self-consciousness, and the result has been confusion upon confusion; for each philosopher has only acknowledged as fundamental faculties those which were the most prominent in his own mind. They scorned an appeal to observation; they shut out the world of things and men entirely from their minds; and instead of observing the action of men to find what was in others' consciousness, they sought to find the faculties of mind solely by self-introspection. Once in a while they appeal to a blind man or two, to support their theories, as, for instance, in the discussion concerning our knowledge of space; both those who maintain that a knowledge of space is obtained by an innate power, and those who assert that it is wholly an acquired product, appeal to the experience of the blind to support their theories; but they have never made a systematic collection of the facts of nature to support and prove their theories, and yet this ought to be done in order to arrive at a complete analysis of the powers of mind.

Suppose, for instance, that the fundamental powers could be ascertained by self-introspection, it is evident this could only tell half the story, for it is well known that men differ widely in mental character from each other, so that what one philosopher considers as fundamental, would only be those qualities which happened to be uppermost in his mind at the time of his meditations. This is borne out by fact; for a long time the faculties recognized as fundamental consisted only of intellectual faculties; now, it is evident that, engaged in abstract thought, and in intellectual meditation, the intellectual faculties would be the uppermost in the mind, hence the faculties recognized as forming our mental nature by the metaphysician are of an intellectual character. Of the other powers which form the characters of men, the propensity to fight, to kill, the love of offspring, the instinct of propagation, the love of approbation, they have said almost nothing.

NECESSITY OF CONSIDERING MIND OBJECTIVELY.

The metaphysical analysis of the mind is extremely one-sided. If a careful observation of the mental dispositions of others had been considered and applied as a corrective to their self-introspective method, it would have been more complete. But the metaphysician up to recent times has always treated with contempt facts derived from observation; thus setting at naught the experience of mankind, and absorbed in his own selfish observations, it could not

be expected that the science of mind thus evolved would consist of more than vague generalities, and flat denials of some of the most evident innate powers. The philosophers of this school, in their desire to get rid of the objective side of thought, have appealed to the subjective side entirely, and thus lost the most universal field of proof—the observation and experience of mankind. Neither did they escape as they hoped the objective side of thought, for there is really no such thing as thought without its objective side. Let any one try, for a moment, to evolve from his own consciousness the various faculties of his mind, and he will find that before he can form any conception of the nature or function of a faculty at all, the faculty must be presented to his mind in an objective aspect; and in order that it may be presented as an object to the mind, it must present itself in one of its distinct modes of activity. The question, then, arises to perplex the inquirer: Is the mode of activity thus presented the function of one fundamental power or of many? To answer satisfactorily this question would require careful reflection upon the modes of activity of the various faculties presented, from time to time, to self-consciousness. Now this process is analogous to the observations of nature; it is a species of mental observation, and as such, the analysis of mind thus founded will depend for its completeness and accuracy upon the skill and range of the mental observations. It would therefore appear that observation forms even a very important part in mental introspection, and can

not be shuffled aside, as the metaphysician strives to do. It is evident also that this kind of mental observation, from the very nature of the difficulties which surround it, is apt to be extremely one-sided, limited, and inaccurate, and stands in need of thorough observation of external facts to enlarge and confirm any analysis of the mind based upon it.

The futility of establishing an analysis of the mind by the method of self-consciousness alone, appears in the various systems of mental philosophy. The dust of ages has accumulated upon libraries of books full of endless discussions concerning the fundamental powers of mind, yet no complete analysis of the mind has been attained. Take for instance memory, which is recognized by many philosophers as a fundamental power. If this be a distinct fundamental power, it ought to perform one distinct function, namely, memory, and should be able to retain and recall all things with equal facility; but what do we find by actual observation of men? That some have good memories for events or historical facts, and poor memories for figures. Some have poor memories for colors, and yet can remember the situations of places with facility. So others again can not remember locations, but remember numbers. Some remember all the varied harmony of time and tune, in vocal or instrumental song; while others with good memories for almost everything else, can not distinguish one tune from another. This evidently points to powers behind memory, which are in some cases deficient and in others well developed. Memory, therefore, is not

a fundamental power, but only a mode of activity of fundamental powers.

The same may be said of conception, perception, and imagination. If perception and conception were fundamental powers, we ought to be able to perceive and conceive of all objects with equal accuracy and vividness; but so far from this being the case, it is notorious that there are persons unable to conceive or perceive of many, while their perception and conception of other things are not only good, but intensely keen. So with almost every faculty the metaphysical school calls fundamental.

THE INCOMPETENCE OF METAPHYSICS IN ANALYSIS.

If we attempt to apply the mental analysis derived from self-consciousness alone, to explain the varied states of mental phenomena, its incompleteness and unsatisfactory condition become at once apparent. This analysis can offer no adequate explanation of idiocy, insanity, or of partial genius. Nor can it tell why some have talents for mathematics, and none for poetry; why one person's soul kindles with oratorical fire and utters burning words which another with equal intellect can not command. It can not tell why one man is a clown and another is a consummate tragedian; why one man can express himself with ease and facility, and another man with even more intellectual power can not command sufficient words to express his ideas clearly. The metaphysician may attempt to account for diversity of talents by habits

of association, attention, and the force of circumstances, but the observed facts of nature do not support their conclusions.

Individuals have been found to manifest powers for music, oratory, mechanical invention, who have been brought up in the most unfavorable circumstances, and so early in life as to preclude the possibility of association, habit, or education having moulded their minds in this direction. To enumerate examples would only lengthen this thesis unnecessarily. A few may suffice. George Bidder, in early childhood, had a talent for mathematical pursuits. Pope was only one among a thousand poets of whom it could be said they "lisp'd in numbers, for the numbers came."

It is a well-known fact that youths who apply themselves assiduously to the same task and spend the same time will, nevertheless, show diversity of acquirements. Children brought up in the same family and under the same instruction differ often in character and talent. Association, habit, circumstantial environment, or any other law of the metaphysician, can not account for the diverse dispositions and talents of men.

The metaphysical analysis of the mind is equally futile in its explanation of insanity or mental aberration and idiocy. In former times, when the self-introspective school had full sway, the soul or mind of man was thought to be spiritual, and entirely independent of the body; so, in those days, when men had a passion for blood, or were troubled with some mental aberration, or a fit of insanity, they thought

he must be possessed by some evil demon, and they called in a priest to exorcise him. Nor has the metaphysical school of our day made much advance beyond this puerile stage of thought. It is still undecided as to the relation of the body to the mind; the seat of their various faculties still unascertained, they can offer no adequate explanation of mental aberration, disease, or insanity. When a man is insane, they say he has lost the command of his faculties. But what faculties, we may ask? for the manifestations of insanity are not the same, but even more diverse than the manifestations of men in the natural state. Some lunatics, for instance, are subject to the most absurd delusions, believing themselves to be popes, kings, emperors, and other great men. Some believe themselves attended by spirits; that the Virgin Mary awaits upon them, etc. Some are harmless and full of kindness, others are possessed with a desire to fight and kill, and will tear their fellow inmates or keepers into pieces. It would be a long story to enumerate the different phases of insanity. The metaphysician can not account for these phases. He might say that the mind was diseased, but in what place and in what respect, he is unable to tell. The intellect of some is apparently sound, and yet they are subject to the most ridiculous delusions. Why can these lunatics reason intelligently upon almost all subjects except the one which is the form of their insanity? So useless is the metaphysical analysis for any practical purpose, that a metaphysician is never called in to pronounce

a man sound or unsound; and yet who ought to be better able to decide such cases than those who claim to have analyzed the mind? The truth is undeniable, that by self-introspection we can not ascertain any organ, either of mind or body. No one can, by merely thinking or reflecting upon the various thoughts or emotions which arise from time to time in his mind, tell whether they depend for their manifestation upon material organs or not. The very looseness of the phraseology we are obliged to employ proves this emphatically. We speak of heart forces, of brain power, of the swellings of the soul, and such like terms, and yet we do not really mean that the heart is the seat of any faculty of the mind. Whatever we may be able to ascertain by self-conscious reflection, we can not ascertain the seat of individual organs, nor their exact function, nor the process by which thought or feeling is developed. No knowledge of physical organs was ever obtained by the self-conscious method. If physiologists had not long ago given up this process and resorted to observation and experiment as a basis for reflection, we would still be in the vale of ignorance with respect to the function of the multitudinous nerves of the body. It was only by accurate observation that the motor and sensory nerves were separated, and their functions ascertained. So, also, with every bodily function, experiment and observation were at the basis of its discovery. The same law must regulate the investigation of the mental functions, if they are connected with material organs. We love, we hate;

we are urged by an instinct to propagate our species, or an instinct to defend ourselves or property; but consciousness can not tell the seat of these feelings, nor has anatomy, in her search for the fundamental or genetic faculties of the human constitution, been more successful. The brain has been dissected for ages, and anatomists have examined its various parts, and have failed to find the genetic powers of thought or instinct hidden away in its convolutions. No one could tell by merely looking at a convolution in the brain that it was the seat of instinct, feeling, or memory.

THE EARLY WORK OF THE PHRENOLOGIST.

When Gall appeared upon the arena of investigation into the genetic powers of mind, he found everything in the mental field in a deplorable condition. Philosophers of the introspective school were still debating among themselves upon those very faculties necessary to form an accurate judgment of anything. Anatomists and physiologists were still undecided that the brain was the organ of the mind. It is true they had partitioned off the brain into a few compartments and had added barbarous names to them, but these names indicated nothing but ignorance of the function of the parts to which they were affixed. Gall had, therefore, not only to combat the erroneous analysis of the mind, as given by the metaphysicians, but even to revolutionize the science of anatomy. He taught the composition of the brain. He proved the brain to consist of fibers and cells, and separated

the white from the gray matter. When we read the account of Dr. Spurzheim's dissection of a brain, in presence of the learned anatomists and professors of medicine in Edinburgh, we find that so ignorant were these professors of the composition of the brain, that some of them shook their wise heads and said they *thought* they saw fibers. The theory of the brain composition is now a settled fact, yet Gall had to combat this point against the learned of his day. He taught a more satisfactory method of dissecting the brain, a method which undoubtedly laid the foundation of the present experimental school, at whose head are Ferrier, Goltz, and others, yet some of the disciples of this school, ignorant of what they owe to Gall, are still in the habit of sneering at him and his mental philosophy.

It is not within my province to give an account of the discoveries Gall and Spurzheim made in anatomy and physiology. I mention these only to show that the founders of Phrenology were not unskilled in anatomy, as the opponents of Phrenology have asserted. It was the opponents of Phrenology who were unskilled in anatomy. All the discoveries in anatomy and physiology made by Drs. Gall and Spurzheim, and which were bitterly opposed at the time, are now acknowledged by the leading anatomists and physiologists to be sound and correct. The condition of mental and anatomical science being such as we have described, we must acknowledge the fathers of Phrenology to be men of rare genius. The force of mind which enabled them to break away

from nearly all the recognized channels of investigating the mind, and seize upon a system of investigation which included all the benefits obtainable by other methods, and added a means of determining the organs and functions of the brain entirely overlooked by all who cultivated the science of mind, is surely worthy of the name of genius. Their superior minds surveyed the whole field of mental inquiry. They saw at once the imperfections which necessarily followed from investigating the mind by self-consciousness alone. They saw the futility of anatomy unaided by physiology to determine the organs and functions of the brain, and formulated a method at once simple, natural, accessible, and within the range of thorough demonstration; a method destined to lead to a science of mind and character founded upon a physical basis. As the truth of Phrenology depends upon this system of investigation, I think it necessary to show in detail, and yet, as concisely as possible, the method of proof and its attendant advantages. Especially do I think this necessary, as Professor Bain, while aided in the composition of his works on the study of character by the analysis of the human mind supplied by Phrenology, and also by the new light thrown upon many obscure physiological facts by deductions obtained from the phrenological methods; yet, after examining Phrenology and acknowledging its merits and the general truth of its inductions, he professes to steer out upon a course of self-conscious reflection, to discover the fundamental powers of mind. I will not discuss

Bain's work upon the study of character here, but will leave it till later, and in the meanwhile go on with the method of phrenological investigation.

Ever since the Baconian philosophy laid down the grand principle of first accurately ascertaining facts and then drawing inductions from them, the domain of speculative philosophy has been growing narrower and narrower ; science after science has freed it from the trammels of the purely speculative school, and established itself upon the solid basis of inductions gleaned from a wide field of observation. For ages the science of geology offered ample scope to the speculative philosopher to engage in endless disputations ; but a few men by patient observation of the phenomena of nature put to naught all their vain speculation, and established a science of geology on the basis of induction ; so also the sciences of chemistry and physiology never made any positive progress till men of patient inquiry, undaunted by vague theories, urged with all the vehemence of authority, established them upon the basis of observed facts. They constantly observed the various organs of the body in activity until they learned their functions. If they had merely speculated upon the probable function of the heart or liver, they would be speculating still. Thus every science has progressed in proportion as it has been freed from the shackles of speculation and guided by the light of observation.

THE PHRENOLOGICAL METHOD INDUCTIVE.

Phrenology was an attempt to rescue mental science from the region of speculation, and subject it,

like other sciences, to experiment and observation. Phrenology claims that it should be investigated according to the principles upon which all sciences having a physical basis are investigated. Bain evidently deals unfairly with Phrenology when he declares that he is unwilling to follow its long, though correct, method in determining what are and what are not fundamental powers, and seeks to settle the truth or falsity of the phrenological analysis by what he calls an appeal to consciousness. No physiologist would submit to have the functions of the various parts of the body discussed in this way. He would insist upon an examination of the observed facts by which the functions of the different bodily organs had been established. What physiologist, for instance, would now submit to a long discussion upon the functions of the liver, the kidneys, the heart or lungs, whether it were possible that these could perform the work respectively assigned to them. Every physiologist would, most assuredly, protest against such a course, and insist emphatically upon an examination of the observed facts of nature; yet, this is the way the modern school of mental philosophy persists in determining the merits of Phrenology, which claims to be founded upon the observation of physical and mental phenomena connected with material organs.

The method of discovering the organs and functions of the brain pursued by Gall was similar to that which, pursued by the physiologists, led to the discovery of the different organs of the human body and their functions.

It was a method only such as a genius would ever have thought of applying to the discovery of the functions of the brain. Thousands had daily observed the falling of apples to the ground, but it took a Newton to discover, by the application of this fact, the universal law of gravitation. Steam had always issued from the mouth of a kettle, but Watt saw not only the steam, but the power it contained. The blood had coursed through the arteries and veins of men ever since the creation, but no philosopher of the speculative school ever evolved and demonstrated a theory of its circulation; this was the glorious achievement of Harvey, by dint of patient observation and thoughtful induction. Anatomists, before the time of Gall, had dissected the brain by slicing it as one would a cabbage, and theorized concerning the functions of its various parts, but no system of mental philosophy was devised. Men have differed in disposition and talent ever since the world began, but no philosopher, before the days of Gall, ever clearly traced the connection of these dispositions and talents with special developments of the brain. Much speculation no doubt existed before Gall as to the seat of the passions, intellect, and emotions, but nothing was clearly demonstrated. Many of the erroneous theories then promulgated still retard the progress of mental philosophy. Gall was the first philosopher who conceived the most accessible system of proof capable of determining and demonstrating the organs of the brain and the dependence of mental manifestation upon these organs. The method of his discovery

was unique, but wonderful in its results. Who would ever have supposed that the form or shape of the head, that particular excesses or deficiencies in different parts could tell such a marvelous tale, and settle the debatable points which had been discussed for more than 2,000 years? In truth there is still something incongruous in the idea of telling a person's disposition by the appearance of the skull, and the science of Phrenology is even now mirthfully called Bumpology; yet, if we patiently follow the investigations of Gall, we will find that the science of Phrenology is not so ludicrous as many suppose. So men ridiculed Harvey's theory of the circulation of the blood, and no contemporary of his of any renown ever accepted or adopted it. Yet so perfect was his demonstration, that no essential improvement has been made in it, and its universal acceptance is the monument accorded to genius.

But let us see how Gall proceeded. Having gleaned from the field of observation facts to show that men differed widely in dispositions and talents, he next endeavored to ascertain whether these diverse talents and dispositions were connected with any physiological development of body or brain. He observed that certain parts of the skull were more developed than other parts, and he wondered if these developed parts might not be a sign of the disposition he had observed. How was Gall able, amid all the multiplicity of human dispositions, to connect one fundamental quality with a particular portion of the brain? There lay the Pyrenees to be crossed before success could

gleam upon him. Here is one of the principles of the phrenological method which the learned have failed to comprehend, else they would cease from the unsatisfactory, if not the futile, attempt to discover the fundamental powers of mind by slicing, cutting, and subjecting the brains of animals to shocks of electricity. The expedient hit upon by Gall in order to separate the dispositions and actions of men and connect them with special cerebral developments, was as follows.

DIFFERENCE BETWEEN THE PHRENOLOGISTS AND EXPERIMENTALISTS.

He discovered in his investigations that nature had performed what the experimental school at the present time vainly tries to perform, namely, to obtain negative and positive proofs of the functions of particular portions of the brain. The school of Ferrier, Goltz, and others is wont to take living animals and remove portions of their brains, and ascertain by their actions what faculties seem to be lost. They hope in this way to discover the functions of the various parts of the brain. But Gall discovered that nature had already performed this process, for she had given birth to men and animals, with portions of their brains excessively developed, and the same portions in others exceedingly depressed. Gall, by a series of observations on men of peculiar and special talent or character, succeeded in connecting certain dispositions or tendencies with particular portions of the encephalon. This discovery was of immense importance to

Gall, or rather to the science of mind. It was impossible to get a more extensive field to prove any system of philosophy. Nature had spread out in unlimited profusion the means of making and verifying observations. Not only the human race, but all animal life was subject to this method of investigation. Neither did time place a limit to these observations, for men and animals could be observed, not for one day only, but for months and years. The experimental school can boast of no such opportunities; their labors must necessarily be confined to a few animals under the effects of anæsthesia, and reluctant responses from the fundamental powers of mind can only be dragged from them amid scenes of blood, torpor, and stupor. These responses consisting mainly of bodily movements, will be interpreted with difficulty as the signs of the functions of cerebral organs.

Gall having thus discovered that the talents of men were connected with particular portions of the brain, he next proceeded to gather a number of skulls showing abnormal developments and depressions. He took casts of the heads of such persons as were noted for special talent or traits of character, and also casts of those who were deficient in these same traits of character, and on comparing them together found that the former had certain portions of the brain excessively developed and the latter had but a small development of the corresponding portions of brain. When in many cases he found certain talents or traits of character to exist in the person with a particular portion of the brain developed, shown by prominence

or fullness on the skull, he found that the same talents were absent or weakly manifested in those whose skulls were depressed at the same place. When the prominence existed in the other cases, he concluded that these traits of character were connected with a portion of the brain contained within the skull. Thus he had proofs both positive and negative.

He did not rest satisfied with the observations of a few persons, but extended them to thousands of persons, making casts and collecting skulls. To extend the range of his observations, Gall visited schools and colleges, insane asylums and prisons, and wherever he had hopes of getting persons distinguished for special talents or noted for anything peculiar. Their faculties were carefully noted, casts of their heads were taken, and special development recorded. Thus the science of Phrenology was really discovered through observations made upon prominences and depressions of the skulls, and ridicule was thrown upon Phrenology because its principles were thus discovered.

But this, instead of being a demerit to Phrenology, is its chief glory. If phrenologists had not taken advantage of the negative and positive proofs thus supplied by nature they never could have established a science of mind or character. The botanist takes advantage of abnormal development in flowers to clear up difficult points of morphology, and many important truths have been discovered in this science by such sports of nature which could never have been ascertained in any other way. Nature always sup-

plies means for the ascertainment of truth, although these means may seem ridiculous in the eyes of some. The trouble too often lies not with nature, but with a certain class of scientists who prefer to make an abstruse problem rather than follow her plain teachings. Men may call Phrenology a science of bumpology because its principles were first suggested in this way, but it was only by these abnormal developments in connection with leading mental characteristics that a knowledge of the primitive faculties could be discovered; for it was necessary that the manifestation of one particular faculty should far outstrip in power and activity all the other faculties of the mind in order to ascertain what dispositions could come under that faculty. In other words, some means should be supplied whereby the function of one organ could be studied to the neglect, for the time being, of the functions of the other organs, so as to distinguish clearly what were the actions belonging to that organ from the actions belonging to the others. And this the great and small development of different parts of the head, called Bumpology, conveniently supplied. Yet it ought to be remembered that although the organs and functions of the brain were correctly ascertained, and their sphere of action and location discovered by special protuberances and depressions of the skull, that these protuberances can not be found upon all heads. These developments are abnormal. The harmoniously developed head does not have these special prominences on the skull, but there is no difficulty in reading

character from such heads, as the location of each organ has been accurately ascertained by means of the abnormal developments.

THE BRAIN EXAMINED.

Dr. Gall next, when the death of these persons offered an opportunity to get possession of their heads, removed the skull and found that the cerebral mass corresponded in every case with the abnormal developments of the skull. He found that when there was no prominence of the skull, but a depression, the convolutions were small or entirely wanting, and where there was a protuberance of the skull, the convolutions swelled out and completely filled the cavity made by the protuberance. Thus the labors of the neurologists were at an end; a resort to clinical and pathological or experimental methods was not absolutely necessary. But Gall and Spurzheim, with that indomitable zeal to prove all things beyond a possibility of a doubt which ever animated their professional career, followed up their investigations by these methods. It would be a long task to enumerate the catalogue of cases confirmatory of the location and functions of the various organs they had thus established. Injuries to the brain, accidental or purposely induced, revealed the fact that the organs of the mental faculties had been truly located. Persons who had received a blow on the part of the brain where the phrenologists locate the organ of Color were known to be deprived of that faculty. So men who had been suddenly possessed with an irre-

sistible desire to kill, or to gratify sexual love and other desires connected with the primitive instincts, were discovered by phrenologists on removal of the skull to have the portion of the brain under the skull, where the organs of such propensities were situated, diseased. Though the organs were first discovered by the shape and form of the skull, yet by repeated observations the distinct convolutions or parts of convolutions connected with special dispositions were accurately named and marked out. So that by the situation of the convolutions themselves without the aid of the skull, the analysis of a person's character could be given. Spurzheim gave such readings on several occasions.

The assertion, therefore, of Bailey and other philosophers that Phrenology is at best only craniology, or a science of the cranium, is not strictly correct. The phrenologists never attempted to connect the dispositions of men with developments of the cranium; they always maintained that the brain mass gave size and shape to the skull, and not the skull to the brain. This doctrine they proved by many facts. They showed, upon the removal of many skulls, that the convolutions did not all run in one direction, that some of them swelled out more in the middle than at the end, some ran transversely, vertically and some horizontally and actually moulded the developments of the skull to correspond with these portions. The fact that the size and form of the organs of the brain can be predicated by the general appearance of the skull does not necessarily con-

stitute Phrenology a science of the cranium. The size and form of the muscles of the body may be determined through the skin; the space which the lungs and other organs of the body occupy is determined by measurements of their bone or skin covering; but does this constitute physiology a science of skinology or boneology?

But it has been asserted by some writers on mental science that Phrenology will have to give place to the doctrines deduced from the more accurate experiments of Goltz and others. It has even been asserted that if Gall and Spurzheim were now living they would give up Phrenology and betake themselves to the experimental school. But this is purely a matter of conjecture, and there is nothing in the facts of the case to warrant any such supposition. That Gall and Spurzheim, if they were now alive, would engage in experiments similar to those of Ferrier and Goltz, is probable; but that they would decide these experiments to be more efficacious than their own method is monstrously absurd. While they lived they did not neglect any opportunity which they thought would prove or throw light upon the science of the mind. They employed the clinical, pathological, and galvanic experiments which gave results similar to those obtained at the present time by Ferrier and others; but they employed these methods, not because they thought them more efficient, but as an aid to their own system, and more especially to convince opponents who had a taste for such experiments. They always maintained that

these methods were insufficient to determine the functions of the brain.

ARE THE METHODS OF THE EXPERIMENTALISTS
BETTER?

The experimental school as conducted to-day offers no better method of determining the organs of the brain than the phrenological method. In order to establish clearly an organ and its appropriate function four conditions are necessary: (1) The probable location and size of the organ; (2) The natural language, action, or process which constitutes its function; (3) It must be experimented upon without affecting neighboring organs; (4) The organ when experimented upon must be in a normal condition in order to manifest its functions correctly; and a fifth condition might be added, viz., an extensive field for experiment and observation, which, although not as necessary as the four previous conditions, would seem requisite because of the vital importance attached to the deductions from the experiments. The experimental school, it is needless to say, can not comply with any of these conditions. They neither know the extent nor location of the organs they seek, whether they occupy a whole convolution or a part of a convolution as they experiment upon the convolutions in a hap-hazard manner. They have not systematically studied the language or processes of the organs they seek; hence their ridiculous interpretation of the responses they have obtained. They have exhausted the entire cerebral mass in the per-

formance of such ridiculous functions as a center for wagging the tail, a center for the advance of the right foot, a center for twitching the eyes, which latter they call the organ of sight. They experiment under very disadvantageous circumstances. They have recourse to anæsthesia, which puts the organs of the animal in an unnatural stupor. It is not, therefore, possible to get the clear responses which express the function of an organ in the natural state. It is hardly possible to excite one organ by the electrode without exciting a neighboring organ. And it is extremely doubtful, nay, impossible, to get anything but bodily movements from these organs in such a condition and by such a process. How can thought, intellect, or emotion be communicated in this way? Indeed, the science of the mind, as presented by these experimentalists, is nothing more than a science of electrical gymnastics. The cutting and mutilating of innocent animals to acquire a few gesticulations and twitches of the body and limbs, is, to say the least, reprehensible, and contrary to the best feelings of our human nature. The reader can easily imagine how difficult it would be for an animal subjected to stupefying drugs and deprived of parts of his brain and irritated by shocks of electricity, to express the various faculties of his mind. The extent of the field of experiment is confined to a few animals, and the experiments must be performed and the responses obtained before the animal dies. If these gymnastical performances and the ridiculous interpretations drawn from animals in stupor and mutilation, by a

process revolting and unnatural, are capable of superseding Phrenology, I should like to see the evidence. If the experimenters had taken Phrenology as an aid they would have been more successful; they would then have had some idea of the extent, location, and language of the organs for which they were in search. Even supposing that they could succeed in determining the functions of the brain in this way, they can only extend their conclusions to man by analogy, for public sentiment will never submit to have men experimented upon as they now experiment upon animals.

So far from the experimental school superseding Phrenology, it has much to do before it can arrive at any one of the demonstrated principles of Phrenology. In many cases the responses obtained by Goltz and Ferrier, when rightly interpreted, support the doctrines of Phrenology, and one of the latest announcements of Ferrier is that the phrenologists have good reasons for locating the intellect in the frontal lobes.

Not any of the inconveniences attending the experimental method is incident to the phrenological. Its field of observation is wide; men and animals in their natural state are its objects of investigation. All the actions and language of the faculties can be gathered and systematically arranged. It knows the position and extent of the organs it seeks. It can summon the clinical, pathological, anatomical, and even the experimental school itself, to support the truth of its principles. The superiority

of its methods is shown by the fact that it has already mapped out the convolutions of the brain into distinct organs and described their functions, and has built up a science of mind and character upon principles not yet disproved. Gall, like some other geniuses in other departments of knowledge, has mapped out the field of mental science so extensively that it will take a long time for men of moderate talents to reach the utmost lines of his demonstration. Much, no doubt, remains to be done. Phrenologists never claimed that their science was complete in all respects. Yet the survey has been made and the true road to travel is open, and, like the railway, may have steel rails in due time.

Phrenology being founded upon inductions from observed facts demands our investigation of these facts, and disclaims to be investigated by self-consciousness alone. It is surprising that the gauntlet thus defiantly thrown down by phrenologists has never been taken up.

SOME OF THE IMPORTANT TRUTHS OF PHRENOLOGY.

Before proceeding to show the value of Phrenology as a means of analyzing types of character, it may be well to take a brief survey of some of the important truths which Phrenology has added to the science of mind. Especially do I think this necessary because, even here in this school of learning (Harvard College), we are wont to speak of many of the truths of the science of mind as if they were but lately discovered

by modern scientists. It is always a disagreeable task to dispel pleasant illusions, but it is sometimes very necessary, when men become over-confident of the value of their own individual investigations. I will have something further to say upon the subject of appropriation of phrenological discoveries without acknowledgment, toward the conclusion of this essay.

The first principle which Gall and Spurzheim maintained, and which was bitterly opposed on all sides, was that the mind is dependent for its manifestation upon material organs, and that the brain was the principal seat of the mind. It is surprising to read, when we reflect how universally this fact is admitted at the present time, that Gall had to avail himself of every resource to prove his position, and brought to bear against his antagonists accumulations of facts both psychological, anatomical, and physiological, which completely established the phrenological view and annihilated those of his opponents. It does not fall within my province to give the proofs for the mind's connection with the brain, and it is hardly necessary, as nearly all scientists acknowledge this truth. They differ only in the method of the brain's manifestation of mind, whether the brain is composed of cells, and each cell is responsive to a particular shade of emotion or thought, and manifests that emotion or thought when excited by the popular stimuli; or that the brain, as a mass, moves its bulky weight every time to give rise to thought or emotion. Phrenology claims that there are two grand divisions

of the brain mass, and that each hemisphere may act independently of the other or consentaneously together. This is only following the general analogy of the bodily constitution, for we have two eyes which may see objects independently or at the same time ; so also with the organs of hearing. This truth is now admitted. The phrenologists affirm that there are distinct mental faculties, each having a cerebral organ in each of the hemispherical lobes. This truth has been debated with great rancor, but according to phrenological proof it is as truly demonstrated as is the truth of the mind's dependence upon the brain. It is further maintained that power of manifestation depends (*caeteris paribus*) upon the size of the hemispheres, and upon the size of each individual organ. Upon these principles a science of mind and character has been built up which may be divided into divisions as follows : (1) A system of Psychology, having for its basis primitive or fundamental faculties, with a description of their nature, function, sphere of operation, and their relations to each other. (2) A system of Physiognomy, founded (*a*) upon the form of the skull, as determined by the size and form of the cerebral mass, or particular portions of it measured in radial distances from the medulla oblongata ; (*b*) upon the natural language of the feelings and faculties as displayed in the actions, expressions, and attitudes of men. (3) A practical sociology, or the application of the system of psychology and physiognomy in connection with principles of cerebral physiology to the welfare of society and the ordinary business of life.

The psychological part of Phrenology might be divorced from the physiognomical and physiological and studied as a separate system, and it appears to have superior advantage over all other psychological systems. Let us see what it offers to science to-day.

(1) It has been determined by observation and reflection that there are distinct faculties, and that the brain is the organ of the mind, and has a seat for each individual faculty. I will not attempt to give the numerous phrenological proofs for this statement, but will content myself by showing, analogically, that it is quite possible that mind is manifested, not as a unit, but by a plurality of organs. In our investigation of animal life we have found a dependence of mind upon cerebral structure. Every year new facts are added to prove a plurality of cerebral organs. All animal life is a progress on the plane of

SPECIALIZATION OF FUNCTION

from the lowest to the highest, and has its culminating point in man; the more distinct and separate the organs through which the functions are performed, the higher and more intelligent is the animal. If we trace animals back to their lowest forms, we discover but little appearance of separate organs for special functions. The next grade probably reveals a stomach, or something resembling digestive organs. Then the next grade has special parts of the body devoted to special functions; for example, the breathing organs become distinct from the digestive, the eye from the ear, and the organs of voice from the organs of

smell. In the highest animal, man, there is the greatest specialization of function. There is a distinct organ for everything—the eye, the ear, the sense of smell, are all distinct. The functions of the liver, the stomach, the heart, have all separate organs. Nay, it has been discovered that the nerves which ramify through the body and lie in bunches beside each other and are almost undistinguishable in form, have apparently the same texture and composition, yet perform different functions. In the same sheath, side by side with each other, are the nerves of motion and feeling. It is extremely absurd to conceive the brain, which is a collection of fibers, cells, and nervous ganglia in convolutions, acting as a unit, and moving its entire bulky mass every time a thought or emotion agitates it. This is a direct contradiction to all we know of the body in general. It would seem as if nature began on a line of harmonious differentiation of structure, which she carried through the whole body as far as the medulla oblongata and ended there, giving up the idea of differentiation after having tried it through all stages of life, from the oyster to man, as a bad business. Is it not more in accordance with her general plan to suppose that differentiation of structure is also characteristic of the encephalon? that feelings so distinct as anger, love, sense of causation, sense of mathematical relation, of colors, of space, of self-esteem, of construction, can not all be performed by the brain mass acting as a unit?

In the light of modern science, then, Phrenology

still can maintain her doctrine of plurality of organs, and every new fact added seems to support that conclusion. In the days of Gall and Spurzheim this analogical proof could not be so successfully used as at present, for there has been much information gathered from the investigation of the animal life which did not then exist; but, nevertheless, the early fathers accumulated a mass of evidence which proves conclusively the doctrine of the plurality of organs. It is my endeavor not to repeat old arguments in favor of Phrenology, but to view that science in the light of modern research, and to show that Phrenology has still strong claims upon us as a means of investigating the science of character; and, indeed, it holds a place in this department of knowledge which can not be filled by any other method of investigation. Since, therefore, it is not my aim merely to quote and apply arguments from phrenological works, but rather to give a series of original reflections upon the truths of Phrenology, I beg to refer the reader to the works of Gall, Spurzheim, Combe, and the later phrenologists, for the solid array of facts which they have accumulated to prove their principles. The question has been agitated whether the phrenological terminology founded upon the classification of the mind is of value to-day. It would appear needless to discuss this question had not Bain and others attacked it, and endeavored to show that it was erroneous and faulty in many respects. Whatever defects there may be in the definition of the functions which the terminology conveys, nevertheless modern science has not given

us a better terminology. When a modern philosopher shall arise and gain for his terminology such almost universal acceptance in current literature and popular language as the phrenologists have gained, he will be in a position to dispense with the phrenological terminology. As the case now stands, after years of carping criticism and systematic attack by the learned, men can find no better means of describing the various types of character than by the use of phrenological language.

Again: if we view Phrenology in the light of modern science, we find it has many other strong claims upon us. The exposition of the primitive powers of mankind which Phrenology has given, has made it a science of the utmost practical importance. Education which is not conducted upon its principles with reference to the various degrees of development of the primitive powers, can not be complete and satisfactory. Phrenology maintains that a harmonious development of all the powers should be the true aim of education. If, for instance, a person is found with any particular organ excessively developed, as, for example, a person in whom Destructiveness—the excessive manifestation of which is the desire to kill—is out of proportion to his other faculties, all the circumstances which are liable to excite that organ must be removed, and those organs which restrain the promptings of Destructiveness must be educated. So with all the faculties, the weak must be cultivated and the strong restrained, unless it is desired to make the person a specialist in the direction of the strong

faculty. It is evident that any science which is able to point out the connate tendencies of men, will have a vast influence upon the education and legislation of men. If the various capabilities or innate capacities of men are thus unfolded, a sure foundation for the study of character is laid. This science of character will not culminate merely in a theoretical science, but like all other sciences which are founded upon physical facts, will lead to an art—namely, the art of reading the characters of men. This has actually been accomplished; yea, while the metaphysicians are still discussing the genetic powers of mind, or rather their boasted power, consciousness itself, through which they claim to have given a correct analysis of the mind, Phrenology, undaunted by the long discussions of alarmed opponents, has been slowly and surely perfecting the science of mind and character.

READING CHARACTER AS AN OBJECTION.

An objection has been made to Phrenology, even by the present professor of psychology in this university (Harvard), that Phrenology is not a science of the mind, but merely an art of reading character; but of all objections made against Phrenology this is the weakest. Is the science of medicine less of a science because it has given rise to the art and practice of medicine? Is geology less a science because from its principles practical geologists can survey tracts of country and draw geological maps and write reports? If that objection holds good against Phrenology, it applies with equal force against every science which

has its principles so well defined that they can be put into practice, for an art is only applied science. This objection, instead of being an argument against Phrenology, is the crowning proof that its principles are derived from nature itself.* No vain theory of the imagination has given birth to her mental delineations. In the crowded hall, in the street, on the platform, in schools and seminaries, in insane asylums, in prisons, on convict ships, in churches or in the theater, and among the most barbarous and civilized peoples of the world, its principles have been tried and failed not. Can any of her sister sciences—metaphysics and experimental philosophy—show an equal record? No, they have not yet accomplished a precise and complete analysis capable of unfolding a science of art and character. That Phrenology is an art is no objection, but her chief triumph, proving her

* It is only just to mention that the professor of psychology before whom this essay was read, since the reading of the essay has explained that by his assertion that Phrenology was not a science, but merely an art of reading character, he did not mean an art in the real and true sense—as an art of medicine, etc.—but simply an art in its degraded sense, as applied to fortune-telling, astrology, etc. It would have been well if he had given this definition of art to his students in class assembled, as his words then conveyed a condemnation of Phrenology as an art in the true sense of the word. It does not seem possible that the professor of psychology, after a careful reading of the works of Gall, Spurzheim, Combe, and Bain, which he says he read with great interest, could entertain so low an estimate of Phrenology, especially as Prof. Bain, who is not at all partial to Phrenology, admits it to be a science of character as well as an art.

principles to be as sure in their operation as the laws of nature. How, in the name of common sense, could the principles of classification and cerebral development be erroneous, if men can by their means pick out all the types of character, and analyze them so successfully that thousands will admit the correctness of their delineations? Phrenologists are not afraid of their science; they have always sought, nay, entreated, begged, and demanded investigation. The conduct of Gall, Spurzheim, Combe, Vimont, Caldwell, Elliottson, and the Fowlers proves this. They have selected prominent men, men whose characters were known to the public, and have appealed to them to witness the truth of their science; they have shown upon every occasion that the cerebral development corresponded to the mental manifestations. The heads of persons unknown to them have been given, whose characters they have successfully read. Any person is at liberty to decide for himself the truth of their propositions. It would be an easy matter to put Phrenology into the crucible and try it. Take any one of the many persons whose characters phrenologists have claimed to have analyzed, and show that the analysis is incorrect; this would do more to convince the public of the falsity of phrenological principles than all the long-winded discussions of the metaphysical, and the rash assertions of the experimental schools. But this has never been done, and I am convinced it never will be accomplished. For many years the science of mind and character, as revealed by Phrenology, has been before the pub-

lic, and the learned have either ignored its claims by appeals to the mirthful tendencies of human nature, or have misquoted its teachings and principles.

THE INJUSTICE OF PREJUDICE.

The demand made by phrenologists that their science should be investigated according to the principles they have laid down, has never been complied with by the opponents of Phrenology. If this demand were complied with the opponents would become fewer and fewer, and finally disappear altogether, or begin to waste their strength and delay the progress of truth in some other department. I speak this as no mere rhetorical flourish, but from historical facts. It is a circumstance strongly in favor of Phrenology, that all those who have made a thorough investigation of its principles according to the natural rules laid down by phrenologists, have ended in belief in the science. To give names would only encumber unnecessarily this essay. If any one wishes to prove the truth or falsity of Phrenology, let him pursue the following method of investigation: (1) Clear your mind fully of all preconceived theoretical opinions originated by the self-introspective method as to the impossibility of founding a science after the manner of Phrenology. (2) Keep your mind freely open to receive truth, even if it is new and not recognized by the members of the conservative schools of thought who wear their professorship cowls within the walls of many of our universities because they have given, in their college career, good proof of their orthodoxy.

(3) Remember that schools and colleges have not generally received new truth, but have oftentimes been the first to oppose it. (4) Remember, also, that principles which have long been taught may be false, even if professors of ability maintain them; in other words, authority is no criterion, truth must be decided in the crucible of mental conflict and experiment. (5) Do not hastily conclude that a whole science is false because one or more of its principles seem founded upon a wrong basis; this is often exemplified by the opponents of Phrenology; some are ready to consign the whole science to the region of forgetfulness, because they think they have found one or more errors in the system—as, for instance, you know the frontal sinuses, even if they are only an inch and a half or so wide, have the expansive power of rubber, and may cover the entire brain, so that it is utterly impossible to measure any organ when you can not measure one or two. That is, you know, Edinboro' and Boston are so intimately connected with each other, that the covering of a few houses in the first city by a drift of sand or snow would completely cover all Boston, and nobody could find his own house. (6) Never surrender truth, or your convictions of truth, through fear of not being on the side of your professor, and thus lose that delightful criterion of human scholarship, that adjustable gauge by which professors assure themselves of the brilliant lights of the school if not of the world—you know what I mean, those ominous things which make a man's heart tremble about examination time—Marks! Marks! It would be well, also, to

bear in mind, in all your investigations, the following definition of a faculty: (1) A faculty is admitted as primitive (*a*) which exists in one animal and not in another; (*b*) which varies in the two sexes in the same species; (*c*) which is not proportionate to the other faculties of the same individual; (*d*) which does not manifest itself simultaneously with the other faculties; (*e*) which may act or rest singly; (*f*) which may be propagated distinctly to offspring; (*g*) which may singly preserve its proper state in health and disease. To the classes of this definition of a primitive faculty no objection can be made, says Professor Bain, and yet he will not follow such a method because too laborious. I shall have occasion to discuss Professor Bain presently.

A BASIS LAID DOWN FOR THE STUDY OF CHARACTER.

In order to establish a science of character, we ought to study man as he presents himself to us. Observation, which is the foundation of all that is permanent in every science, is even of more importance in the science of character. Men differ so widely from each other in character and mental qualities, that it is impossible to build up a science of character from self-introspection unaided by observation. Yet self-introspection can do much more for the science of character than she has done in the past. If the philosophers of this school had made themselves the subject of the closest observation and introspection; if they had noted down their various actions, modes, feelings, and the conflicting passions which at

times stirred their bosoms; if they had extended these observations and reflections into a period of years, not for a few moments only, not solely when in tranquil and thoughtful states of mind, but at all times, in calms and in passionate moods alike, a more satisfactory analysis of their own character would have been accomplished. Nevertheless, this would only be half of the science of mind and character, and would lack wide and definite proof; and, besides, since men differ in dispositions and mental qualities, in order to get a complete science of character men in every condition and of individual traits of character must be observed. After the facts were collected deductions could be made from them, and a correct analysis of mind and character obtained. This might be called the *psychological* part of the science of character, but still this process alone would not lead to a complete analysis of human character. If mind is connected with the brain and body, the seat of the fundamental powers which lead to the differences of character ought to be discovered. The size and quality of these organs (if any material organs are discovered) and the conditions of their activity should then be investigated. This would lead to organology, or the physiological side of man's character. This is by far the most important part of the subject. Physical facts, when once established, are not easily disproved. If the seat of a function has been ascertained, many opportunities are opened for watching its manifestations, for these can readily be noted from time to time, and their degrees of power and activity meas-

ured. The proof of an organ or of a fundamental power is then capable of thorough demonstration, for a certain function being always connected with a particular organ, the function infers the organ and the organ infers the function. It is because the metaphysical analysis of the human mind has no physical side that it is so unsatisfactory. Built upon mere speculation and connected with no particular part of our organization, the mind has been discussed and analyzed by metaphysicians as if it had already broken loose from its physical environment. The consequence has been, and will ever be, endless discussions concerning the very existence of primitive powers. Could the metaphysical thinker point to the seat of any one of the faculties he has analyzed, its existence could no longer be disputed. The question of innate and acquired powers could then be solved. But not having done this, they have resorted to such laws as the law of association, habit, attention, etc., to account for all the various dispositions of men.

What I have just said applies both to the old and new school of metaphysics. The modern only differs from the old school in the principle by which they evolve their conclusions. The old school sought to arrive at an analysis of the mind by desperate efforts to evolve fundamental powers from their own minds, and ignored entirely physical data; the new school simply differs in that they make physical data correspond to their own internal cogitations. Professor Bain belongs to the new school of

psychologists, and his discourses on the human mind consist mainly of muscular association spread out as thin as molasses, by which he attempts to create such primitive powers as the perception of space, locality, size, etc. But laws can not create faculties—they are merely the explanation of how the faculties act. The laws themselves depend upon the faculties behind them. They depend for their very existence upon the very powers they attempt to create. The laws of association, habit, etc., give much information respecting the method by which the fundamental powers act, but although they may discipline such powers they can not create them.

The physical side of investigating the mind and character offers still other advantages. When we know the seat of an organ and its manifestations, we can predicate each in the absence of the other. Thus, for instance, when the lungs are largely developed we can predicate, all other things being equal, great breathing power, and so when the stomach is present we may confidently assert that the powers of digestion will be manifested. Should both these organs be absent, we can declare that breathing and digestion, according to animal processes, will not be manifested. So the phrenologist, having ascertained the physical seat of the various fundamental powers of the human mind, is enabled to predicate the functions of each. Thus, for instance, if it has been ascertained that the disposition to fight or defend oneself is connected with a physical organ for its manifestation, then when that organ is present we

can confidently assert that the instinct of defense will form an element in the character of those possessing that organ. Thus Phrenology shows that in those animals which are pugnacious in the assertion of their rights, as, for instance, the cock, the organ of Combativeness is largely developed; and in those animals which have no disposition to defend themselves by resistance, as, for instance, sheep, the organ of Combativeness is deficient. When a science is thus founded upon a physical basis, it always advances out of the misty regions of speculation into the clear light of demonstrated facts.

THE PHYSIOGNOMICAL RELATION.

In the study of character there is still another side to be considered, which may be called the physiognomical side. Men and animals express their feelings, passions, and thoughts in their faces and by bodily attitudes. These expressions become so fixed that the lines on the face announce what has been the ruling passions of an individual's life, as surely as the hands of a clock indicate the hours on the dial-plate. Behold the graceful curling lines on the cheeks above the mouth indicating the mirthful and happy character! On the other hand, behold the graceful lines are flattened and the cheeks drawn down in the morose and gloomy dyspeptic. No one could fail to tell by the look of a man, when he was angry, sad, or kind. All the various emotions, instincts, and passions have their language, which a practical observer can read as easily as the alphabet.

The tones of the voice, the scowl, the sneer, the gestures of the head and body, reveal much of man's inner nature. A systematic study of this language of the passions should be made if a science of character is to be established. Where is the science of mind or character which has thus surveyed man from all these points of view? Not metaphysics, not psychology, not the experimental school, but Phrenology, contemptuously sneered at because she has so studied man. Her investigations have always been conducted on the broad principles of psychology, physiology, and physiognomy, and the result has been wonderful. It has led to a science of mind having a physical basis, and which, although not complete, has given an analysis of the genetic powers which no other science of the mind has accomplished.

I have not space to give in detail the phrenological analysis of mind and character, yet it seems necessary, before proceeding further in our inquiry respecting the bearing of Phrenology upon the analysis of types of character, to give a general outline of its classification.

Gall and Spurzheim arranged the faculties of the mind in two orders, corresponding to the feelings and intellectual powers of the metaphysician, named respectively the affective and intellectual faculties. The feelings were divided into two genera, the propensities and sentiments. A propensity is an internal impulse—in common language an instinct, which impels only to certain actions. A sentiment is an internal impulse, with an emotion superadded—in com-

mon language, an emotional instinct. The propensities and sentiments have various degrees of activity, from a simple elementary impulse to the most excited outburst of feeling, which is called passion.

The phrenologists also recognize the truth which the present psychological school asserts, that even the intellectual faculties are of the nature of instincts. Thus, to seek the causes of phenomena, or to compare and classify things, are the instinctive promptings of the intellectual faculties of Causality and Comparison. It seems to us that the phrenologists have here anticipated a great truth, which will in the end break down the hitherto rather sharp distinction made by psychologists between the intellectual and the other faculties of our nature. It has been their principle all along to ignore the testimony of the feelings and emotions as merely instincts, and, therefore, untrustworthy; but if the intellect is proven to be also instinctive, surely, then, the feelings and emotions are as trustworthy in their own sphere of action as the intellect.

The intellectual faculties are subdivided into perceptive and conceptive or reflective faculties. These are the grand divisions of the phrenological exposition of the human mind, but each of these divisions has many individual faculties under them. I will now proceed to show, in a general way, the application of the phrenological analysis of mind to the study of character. I have said before that the metaphysical analysis of mind was inadequate to establish a science of character because of its one-sidedness. I

shall not, therefore, give arguments to prove this statement, as I have sufficiently discussed it in the first part of my essay. The phrenologists, by systematically studying man according to the principles which I have laid down in this essay, escaped the vague generalities of the metaphysical school. The phrenologists avoided the difficulty of separating clearly the genetic from adaptive powers, or fundamental powers from their combinations, by observing men of extreme development. Men of one idea, specialists in various departments, were observed, and the elements which made them such, clearly ascertained. When the elementary faculties are once discovered the way is clear. Any intelligent person can combine the fundamental powers together, and estimate accurately their effects in combination. This analytic system can not lead to abuse if followed according to the method laid down by the founders of Phrenology. The unnecessary or too minute analysis which has crept into some works of late date on phrenological classification, seems to have arisen, not from methods of close observation, but rather from the imagination and the introspective method.

ANALYSIS THE BASIS OF PROGRESSIVE SCIENCE.

Analysis is characteristic of all sciences whose principles are subject to observation and experiment. In the childhood of all sciences men are satisfied with mere generalities, but as science progresses these generalities become more specific. Things formerly included under a certain class are shown to differ

among themselves, so that two species may be formed from that which before was held to be but one. Analysis is the spirit of our age; not content with the classification of natural objects which the naked eye has given, men have surveyed the field of objects with the microscope, and microscopic analysis now forms an important part of every science. The chemist, by proceeding upon this principle, has analyzed into simpler elements many things before regarded as elementary. Everything general has now its subdivisions. The chemists can tell how various elements, when compounded, may either neutralize each other or increase their own qualities, or produce a third thing different from the elements. So the phrenologists, having pierced the veil of human action, having got beyond the compounds which make up human motives, and having discovered the elements upon which the compounds depend, have laid the basis for the science of character.

All the types of character are nothing more than the effect of the combination of the genetic powers. For example, a mean, grasping, sordid character like the miser, may be shown to have as its principal element an excessive and powerful activity of the organ of Acquisitiveness unrestrained by the moral and intellectual faculties. A science of character thus built upon the fundamental or genetic powers, is able to state the elements in every type of character, and to arrange all types under their respective classes. This is evident from the phrenological classification, which revolves man's constitution into three well-defined

regions—animal, moral, and intellectual, with various subdivisions. It is my object to show that the true basis for the study of character has not been solved by the psychological or experimental schools of philosophy, but by the phrenological, because that school has endeavored, however imperfectly, to study man according to the plan which we have pointed out as the one capable of reaching satisfactory conclusions.

APPLICATIONS AND ILLUSTRATIONS.

First, then, the phrenologists divide the region of the propensities into the *social* and *selfish* groups. The social group includes those propensities which prompt us to love home, friends, and country. All the types of character whose characteristics are those of sociability, may be shown to depend upon one or more of the propensities of the group. Thus those who love their home, wife, and all the pleasures of the family circle, are not only included in this class, but the very power which shapes the direction of their sociability can be pointed out. For example, large Philoprogenitiveness will lead a mother or father to manifest their sociability in the love and care of children. Or Conjugal Love will make the husband and wife to desire the companionship of each other more than that of others.

The second division of the propensities is the selfish group, whose normal function is self-preservation. Thus Alimentiveness in the normal state gives simply a desire and relish for food, and regulates its quantity, whereas in an abnormal condition it leads

to gluttony and drinking; hence under this class may be included the glutton and drunkard, prominent types of character which prevail in civilized communities. As this division comprises such organs as Destructiveness, Combativeness, etc., we can class the pugilistic type under this head, also murderers, soldiers, and all those types of character which have traits of aggressiveness. Acquisitiveness and Secretiveness, although in their normal action are necessary to economy and prudence; in abnormal activity, when unrestrained by the higher faculties, they may produce a disposition to steal. Hence under this division are arranged all those persons whose leading traits of character are cunning, secrecy, and theft. In general the criminal class are those who have the propensities excessively developed, and the moral and intellectual faculties comparatively weak. They can be divided into types according to the fundamental powers or combination of powers, which shape their character.

Second. *The moral sentiments* are divided into two groups, the selfish and religious group. The selfish group comprises such faculties as Cautiousness, Love of Approbation, Self-esteem, and Firmness. Under this division there are many well-marked types of character. The coward or poltroon, the timid and irresolute, belong here. Here also belongs the egotist, a prominent character. Everybody has come across the man who esteems himself highly; who thinks everybody is wrong but himself; who lays down his commands with authority; whose fiat must be obeyed.

Much of the manifestations of egotism depends upon the unbalanced activity of the organ of Self-esteem. The well-known type, whose chief trait is vanity, has its place here—those who glory in talking about themselves, who are ever striving for the praise of others. Women who are fond of dress and show, and who love flattery, come under this division. A normal development of love of approbation gives ambition and due respect for the opinions of others, but in abnormal activity leads to vanity. Under the influence of the organ of Firmness, which is one of this group, we have the well-defined types of character whose leading trait is stubbornness. Men of strong convictions and iron will; men who are not easily turned aside from the path they are treading; men who can be relied upon to stick to whatever cause they espouse, belong to this class. Firmness in its normal activity is an essential element in all truly magnanimous characters, but when unduly developed and not restrained by the higher faculties, leads to that unloving type of character which we call the mulish or ass type. All those men who are dogmatic, who adhere to opinions or measures in spite of reason or persuasion, belong to this class. When to large Firmness is added an abnormal development of the organ of Self-esteem, we have that most unlovely type of character, the dogmatic egotist. This type is rather prevalent among the Anglo-Saxon race. Who has not had to suffer from some domineering, tyrannical, egotistical specimen of humanity?

It ought to be remembered, however, that all the

fundamental powers have their appropriate sphere of action, and none of them are essentially bad, but good when in normal development and activity ; it is only when abnormal that they give rise to these marked types.

The second division of the sentiments, viz., the *religious* group, which comprises such faculties as Conscientiousness, Hope, Marvelousness, Veneration, explain all the religious types of mankind. The devout Christian, the adoring worshiper, the religious enthusiast, the troublesome ritualist and spiritualist, have their place under this division. Moralists, divines, philanthropists, and all sympathetic and adoring types, depend upon one or more of the organs found in this group.

The *semi-intellectual* group now demands attention. This group consists of such faculties as Constructiveness, Ideality, Sublimity, Imitation, Mirthfulness, etc. This class embraces the mechanician, the artist, the orator, the poet, the sculptor, etc. But it must be recollected that more than one organ is necessary to form these types. Thus, for instance, while the orator needs sublimity, ideality, imitation, and wit, which are organs belonging to this division, he also requires faculties which belong to the other division I have described. In speaking of types of character, it would be necessary to give, first, the classification of mind, and then to take up each type in detail, and show just exactly what are the elements which form that type of character, but this would require more space than is permitted me. I must, therefore, be

brief, at the expense of being misunderstood. I think that a better classification, derived from the phrenological system, could be made, bearing especially upon types of character, as a separate and a very important subject. I hope to see this point more fully developed by the phrenologists. It is not that the elements of the human mind, as set forth by the phrenological system, are erroneous, or that their meanings shade into one another and thus produce cross-division, as Bain and others have asserted, but that while one classification or arrangement is philosophically essential in the exposition of the human mind, another arrangement of the elementary powers is necessary when we come to apply the phrenological classification to explain types of character.

The *intellectual* faculties also lead to marked types of character. This group of faculties consists of Individuality, Form, Size, Weight, Color, Order, Calculation, Tune, Time, Eventuality, Language, etc. It may be shown that according to the development and activity of one or more of these faculties men have a tendency toward certain professions. Thus, for instance, calculation was the ruling passion of Bidder, the wonderful calculator; a passion for colors was a leading trait in the character of Benjamin West, the celebrated painter. Explorers, navigators, and geographers have a good development of the perceptive faculties, especially Locality. So Tune and Time will explain the genius for music which some possess. The literary class must have good endowments of the intellectual faculties, especially Language. We may

explain such types of character as the loquacious talker, the prattler, the eternal gabbler, who seems to have an inexhaustible supply of words, by showing that a large development of the organ of Language, pure and simple, is its basis.

The philosophic type has its basis in the reflective organs, with such as Comparison and Causality largely developed.

It would be a long story to show in detail how admirably the phrenological analysis of mind can be applied to the exposition of character; but in all that has been said, it ought to be remembered that when we speak of one faculty as forming a type of character, we do not mean that all the other faculties are absent in that type, but we mean that the faculty spoken of so predominates over all the others, that it shapes the character and forms a special type. There are also types of character which are the result, not of one elementary power, but of a combination of powers.

THE ORATORICAL TYPE OF CHARACTER—AN ANALYSIS.

I laid down as a basis for the study of character the principle that man ought to be studied as he presents himself to us, and I also pointed out that the best way to carry out this principle was to consider man psychologically, physiologically, and physiognomically. In accordance with this I have given a very brief outline of the genetic powers in man, which singly and in combination form the basis of

types of character. But the reader, from this short abstract, can form no adequate conception of the fullness, practicality, and scientific accuracy of this method of investigating human character. It was my intention to take up prominent types of character in detail and analyze them according to the basis laid down, but this would require more space and time than is at my disposal. I will, however, select one prominent type for special treatment, and I hope it may convey some notion of how well this system of studying man can fulfill the necessary conditions of scientific accuracy.

ORATORICAL TYPE.

I select the oratorical type for special treatment, not because it is an easy type to analyze; far otherwise, for no system of mental philosophy or character-reading has been able to give a clear, full, and exhaustive exposition of this type. My object in selecting it is rather because of its importance, and because it embraces the three divisions laid down more exhaustively than almost any other type, and though difficult to analyze, yet, upon this account, affords a good example of the principle of investigation laid down.

What, then, are the qualities of an orator, and upon what elements of the human constitution do they depend? We have all felt the mysterious power of oratory, more or less, and we would welcome with joy any system of character-reading which enables us to make at least an approximate estimate of what con-

stitutes true oratory. In the consideration, however, of this subject, I am obliged to be brief at the sacrifice of beauty and clearness of statement.

Let us take an orator as he presents himself before an audience, we forming members of that audience, and endeavor to study him as he appears to us. Our speaker is a popular one, an orator of a national or world-wide reputation; this is the best model for study. As he steps upon the platform, the confused murmur of whispering pleasantries subsides, and all eyes are directed toward this one man. What a terrible situation for a human being; ten thousand faces, all glowing with various passions, emotions, and thoughts, are turned toward him. Innumerable eyes are flashing a steady magnetic flame into his eyes. It is no wonder that the orator seems to tremble; his first sentences are husky, inarticulate, and tremulous. A strange, excitable dread takes possession of his whole being, and his body shrinks back, as if wishing to escape from this vast army of men and women. What shall he do? Retire in disgrace, or attempt and fail? How can he, a man possessing the same number of faculties, intellectual, emotional, and animal, as each individual before him, ever address a great assembly of men and women, all burning with passions, some the very opposite to those which he wishes to kindle? It is a dreadful position for any mortal. Very few have been successful. You can count great men in poetry, philosophy, science, and other departments, and fill a book with them, but great popular orators can be told off on your ten

fingers. To face an audience of men and women, and sway them by the power of eloquent speech for an hour or two, is a triumph far greater than the conquest of a kingdom.

The few who have accomplished this glorious victory are found scattered on the pages of history, and it would be an easy task for the memory to enumerate them. But let us see, our orator is one of the successful ones. He passes the Rubicon. That excitability which almost overpowered his intellect now becomes the electric fire by which he will send his message into the palpitating hearts of the multitude of men and women before him. Those eyes and faces which seemed at first so dreadful, so threatening in their aspect, will become the source of his greatest power. As each gleam of pathos, sublimity, wit, and burning logic, lights up his eyes, plays on his countenance, and radiates from every atom of his body, so does a responsive flame glow on the faces of the men and women before him. Thus sympathy is awakened, a bond of communication is established, and that which the orator at first feared has become the momentum power of his success.

As we listen to him, we feel indescribable thrills run through and through our frames. Sometimes they pass along the heart like an icy hand, sometimes they awaken to fury irresistible, and the cry is, "Grasp the shield, draw the sword"; "Let us fight for the principles which the speaker advocates"; "Let us march against Philip!" Then, again, we are entranced, charmed, and held spell-bound by some

beautiful, mysterious, or wonderful illustration or description. Perhaps wit plays with all the irresistible charm of humor, mirth, and drollery; and laughter and applause follow each other in rapid succession. And the more we respond to these emotions, stimulated by the orator, the more powerful and higher his flights of eloquence become.

Now, the question for us to solve is, upon what does all this depend? There is evidently a current of sympathy between the audience and the speaker. What is the law of this current, and the conditions of its manifestation? It depends upon the three conditions which I have mentioned as an introduction to this subject. They are, psychological, physiological, and physiognomical.

THE PSYCHOLOGICAL.

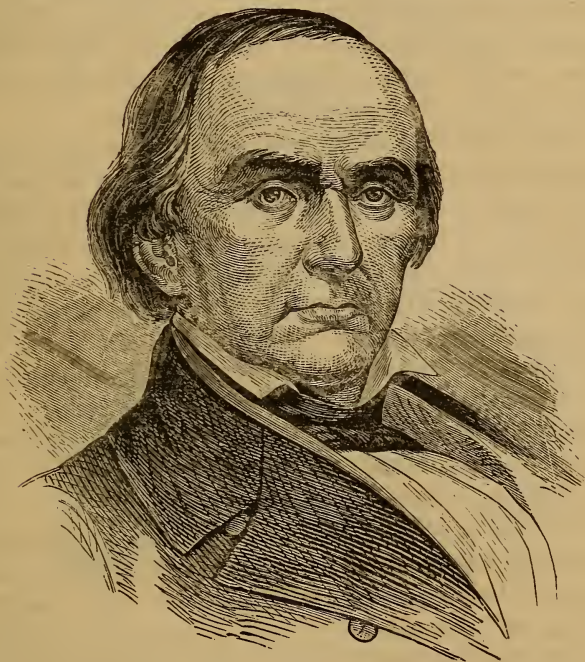
This embraces all the qualities of mind necessary to an orator. In the old scheme of metaphysical analysis we would probably find the essentials of oratory enumerated as a gift of the imagination, a copious supply of words acquired by habits of study, the capacity to arrange in an orderly way the various heads of a speech. Their analysis would consist, at any rate, of the enumeration of some general powers; but few specific elements would be mentioned, and no attempt would be made to connect them with brain or body. In our analysis, we shall attempt to specify the psychological conditions necessary to oratory. There are individual differences in orators, but there are general principles which are common to all.

First, a bond of sympathy must be established between the speaker and the listener in order that the orator may accomplish his purpose, which is the chief end of oratory.

Second, special endowment; there is a genius for oratory as there is for poetry, philosophy, and science. The law of sympathy with respect to this principle is relative; its activity depends upon the constitutional endowment of the speaker and the listener. If the orator and his audience have a number of faculties in common, there will be a psychological current of sympathy set in motion whenever these elements are awakened in the speaker and the listener. Now, this current will be more powerful and overwhelming in its sweep, the more numerous the constitutional elements aroused, and according to the depth and brilliancy of the ideas and phraseology which appeal to them. This is why one kind of oratory has a powerful effect upon some, and another kind has an equal effect upon others. The national or popular orator has the power to awaken the greatest number of constitutional elements, which are possessed in common, or to intensify a few of the more energetic and elevated with frenzied passion. Orators who could sway all classes of people have been few. The great popular orators, like Demosthenes and Cicero in ancient, and Chatham, Whitefield, and Chalmers in modern times, are not numerous. The reason is partly psychological and partly circumstantial. There must be genius, and there must be opportunity. All great orators have appeared in

great crises of the world's history; there must be an outlet for brilliant oratorical bursts commensurate with their power and splendor.

The psychological gifts are these: The highest



DANIEL WEBSTER.

success in oratory depends upon rare constitutional endowments; large mental powers in the highest state of activity; a vigorous endowment of the emotional nature; a poetic imagination, and a command of choice phraseology. Large mental powers depend

upon the size, quality, texture, and health of the brain. All the organs must not only be large, but they must be in a passional state of activity. No metaphysical coolness, no abstract logic, no dry formulas, and commonplace phraseology can thrill an audience. Metaphysical reasoning must become concrete, logic must shine in the volcanic flames of the emotions, and words must be instinct with life and power.

There are two ways of gaining truth through metaphysical and intricate logical processes or by poetic and imaginative intuition. Great philosophers like Kant and Aristotle reached truth by the former; eminent poets like Shakespeare and Milton, by the latter process. Truth is just as true discovered by Shakespeare as by Kant. But truth in the hands of Shakespeare is more persuasive, because dipped in the fountains whence well up the life-springs of action, the fountains of emotion and imagination. The orator should present truth more after the manner of the poet than the metaphysician.

We have said that the orator should, if possible, possess all the faculties in the human constitution in a high state of power. It is right here that oratory divides off into branches; here is where the streams separate, and different styles of oratory become manifest. Some orators possess a few faculties in a state of great power and activity, as compared with other elements in their make-up, and this leads to a peculiar style of oratory. For example, an orator may be all emotional; the whole of his discourse may be addressed to the feelings, pure and simple; he will

wield great power over those who have a similar endowment ; and in a great metropolis will draw around him a large audience, but he can never be a national orator ; he never can be like Chalmers, Demosthenes, or Lord Chatham. This emotional class of orators may divide again into as many branches as there are



DEMOSTHENES.

different elementary powers manifesting themselves in their oratory. Thus, for example, an orator under the influence of the organ of Benevolence will have a sympathetic style of delivery. His illustrations will be tinged more or less with pathos. If we add wit, sublimity, and ideality, then we shall have an orator like John B. Gough, who thrills his audience with

stories of pathos, humor, and heroism. Add to these other powers, and you make an approach to the model orator. The mere effusions, expletives, and exclamations such as are sometimes heard among itinerant preachers, ought not to be dignified with the name of oratory. They are not bursts of genuine passion; they are mere sentimentality, the product, not of a highly emotional nature, but of a low state of development of the feelings. The endeavor of all such is to stimulate feeling which is only skin deep in their nature; hence they express themselves in howls and exclamations. This kind of oratory has been called the oratory of the feelings, but it is no such thing. It is rather a superficial show of the genuine article. Feelings which are deep and powerfully active, are passionate, not sentimental; they express themselves in real pictures, rather than empty expletives. Wrapped around the gleaming trellis-work of the imagination, they glow with all the luxuriance of reality.

It would be a long task to enumerate all the styles of oratory. It is sufficient to remember that psychological difference leads to variety of style. While we assert that every faculty of the human constitution can be skillfully employed in oratory, there are some faculties without which no one can be a great orator. There must be the gift of speech, the organ of Language, as the phrenologists call it. Men have indeed influenced an audience who were not fluent in speech; but we do not call that eloquence. Their power was not in their oratory, but probably in the truth or efficacy of their statement, or in the importance of

the cause for which they spoke. Genuine oratory demands a skillful use of choice words, harmonious in sound and radiant with feeling. Strong, pointed phraseology, interspersed with stately periods, is a powerful auxiliary in arousing men to action. All



CHRYSOSTOM.

the popular orators have possessed this power. Their diction is marvelous for sweetness, music, and grandeur. A good endowment of language, then, is essential to an orator.

Imagination and originality of conception are the next psychological requisites. The metaphysical school simply mentions Imagination in their analysis

as a general power; it is therefore of value only so far as it is a convenient term easy of use; but if we take the best classification of the mind which has as yet appeared, that of Phrenology, we will have a more satisfactory and practical definition of Imagination. Imagination, pure and simple, is the ability to call up an image or representation of object, idea, or event. It is that faculty which makes old truths live over again, which develops and clothes with living beauty the dry bones of intellectual conceptions. But imagination is not one and indivisible; it is not a primitive faculty, it is a general conception like memory, emotion, etc. Imagination, in a general sense, is a property of every faculty in the human mind. Benevolence, for instance, in a state of activity can conceive of suffering so as to inspire the intellect to supply materials for a pathetic story. So Veneration, Hope, Spirituality, Amativeness, all have their imaginative side, and according to the development and passional activity of these organs will be the intensity of the imaginative picture which they present. Such is imagination in general; but the higher functions of imagination—the sublime and beautiful—depend upon the passional activity of sublimity and ideality. Ideality gives that exquisite feeling of harmony and proportion; it detects and rejoices in the beautiful. An indescribable thrill of pleasure seems to radiate from all artistic works of perfection. Ideality is, therefore, an element in perfection of diction and beauty of ideas. But the most important organ in high and elevated oratory is Sublimity. All popular

orators have possessed it well-developed. It seems almost absolutely necessary to popular oratory. When we conceive of the magnitude of the occasion when an orator must address thousands of men and women ; when anything commonplace would be unsuitable for



CICERO.

such a vast assembly ; when, if the speaker wishes to preserve his own identity, his power over so vast and threatening a multitude, his language, his phraseology, his ideas must be correspondingly magnificent. Sublimity clothes all with power. Images and illustrations subjected to its influence burn with volcanic intensity. It has power to lift up and sway an audience as no other sentiment or intellectual faculty can.

Besides imparting grandeur and magnitude to all the emotional nature, it draws the intellectual conceptions within its furnace and imparts to them a giant strength. Hence there have been orators who, in the utterance of what would have been otherwise cool intellectual statements, have seemed to swell with irresistible power. This was because the conceptions were so heightened in magnitude and power by sublimity that they lost for the present their commonplace intellectuality.

If we wish to prove this, we have but to take up the speeches of Demosthenes and Chatham, and the sermons of the great Scottish preacher — Thomas Chalmers. Reason in Demosthenes is not commonplace; the strong elements are seized upon and sublimity exaggerates their proportions. It is the faculty which delights in strong contrasts. The Psalms of David and the book of Job, and prophets Isaiah, Ezekiel, and the book of Revelation are examples. It abounds in Shakespeare, Homer, and Milton. It forms one-third of prose, two-thirds of poetry, and four-fifths of genuine oratory. I have no space for illustration, but here is a comparison which has rooted and blossomed in the fertile soil of sublimity. The orator is speaking of the corruptions of the Roman Empire, and is seeking for a comparison by which to represent the death of her national life, the effect of those corruptions. He compares the utter desolation of Roman nationality to an extinct volcano.

“My friends, have you ever stood above the crater of a volcano when she has spouted forth her burning

lava and gazed far down into her hissing womb, void of all save murky darkness? Such was Rome—one vast volcano drained of all her fire and life; the lurid light of her dying ashes served only to reveal the vile filth spread in heaps around; she grows detested in



the sight of nations; her doom is drawing nigh; the cold hand of death is on her."

Now, an equivalent statement of this by the intellectual faculties would be a tame affair. It would be

simply that Rome, because of her corruptions of morals and general political disorganization, lost her national spirit and so fell a prey to her enemies. But how faint the impression made upon an audience by the latter expression.

I have said that sublimity was one of the most useful faculties in oratory, inasmuch as it made even logic and metaphysics live in a dazzling atmosphere. Chalmers' astronomical sermons are illustrative of this. Probably no other orator ever submitted such deep intellectual thought to a mixed audience as Thomas Chalmers. Yet he was listened to with rapt attention because of the enthusiasm of his delivery and the magnitude of his expressions. In his portrait the organs of Sublimity and Ideality are both large. These organs, Ideality and Sublimity, prompt the intellect to express ideas concretely, not abstractly. This is a high element in oratory. There never has been a great orator, and probably there never can be one, who does not manifest this quality. All the great preachers have the faculty of picture-painting of ideas more or less. The tameness of the ordinary preacher is the result in part of a lack of this quality of the imagination. They gather a few commonplace thoughts and string them together by means of stale phraseology. The whole may have the appearance of condensed thought, but it is old thought in an old garb. Sunday after Sunday people are bored with this stuff, and there is no relief. The clergyman they had before preached in the same way, and should they get a new clergyman he would

probably do the same thing; so there is no escape except to cut prayers as often as possible.

The absence of imagination and originality in a minister is almost fatal to his success as a preacher, because the substantial facts of Christianity are old, and church-people have heard them over and over



again. What is wanted in such circumstances is to produce truth in a new way, in new phraseology, with new illustrations, and new turns of thought, make it glow with the light of the imagination.

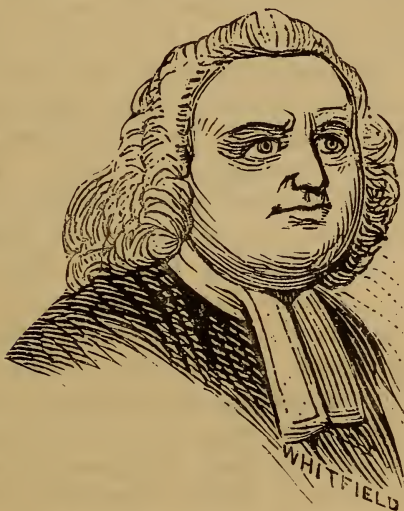
I will just quote one extract from the greatest orator since Demosthenes—Lord Chatham, as an illustration of the difference between commonplace statement and that produced by the imagination: “The poorest man may, in his cottage, bid defiance to all

the forces of the crown. It may be frail—its roof may shake—the wind may blow through it—the storm may enter—the rain may enter—but the king of England can not enter!—all his forces dare not cross the threshold of the ruined tenement.”

The common intellectual statement would be simply that the king of England has no power to enter a peasant's cottage without that peasant's permission. The latter some would regard as strong because more brief, and the speaker would get credit for condensation; but is it not a poor, insipid statement, compared with the pathos and sublimity of that of England's greatest orator?

The other qualification, originality, is partly a product of the emotional nature and partly an intellectual endowment. The capacity to grasp truth in an original way, to clothe it with new phraseology and turns of thought, is an indication of true genius. A speaker may be influential who collects and gathers facts and presents them before an audience as matters of information without original reflection, but he never can wield the destinies of nations, or systems of truth, or the fate of great movements. It is great orators like O'Connell, Chatham, Fox, Mirabeau, and Luther, who can shake thrones, demolish old abuses, and build up on their ruins a new and more noble edifice, burning with the original fire of their own age. I have said that the power of originality was partly a quality of intellect and partly a product of the emotional nature. The intellectual faculty most concerned is Comparison, whose function is to detect similarities

in ideas and things. Old truths become new by placing them in new relations, or by discovering their similarity to other truths. In doing this there is a process of comparison going on, an object is presented by the observation, and the faculty of Comparison detects a likeness or common resemblance



between that object and some other object or idea. This flash of identification is an element in originality. All great inventors and scientific investigators have made their discoveries in this way. It was by a stroke of the identifying faculty that Newton saw the law of gravitation in the falling apple, and that Watt beheld the steam engine in the white coils of the vapor issuing from the mouth of the kettle.

Comparison extends through every department of knowledge—in botany, chemistry, philosophy, and poetry. In oratory it is almost indispensable. The Saviour of mankind—the greatest orator the world has ever seen—seldom spoke without a comparison. “The kingdom of heaven is like a grain of mustard seed.” “It is easier for a camel to enter the eye of a needle, than for a rich man to enter the kingdom of heaven.” The prodigal son, the man traveling into a far country, the foolish virgins and their oilless lamps, and many other fetches of similarity testify to the usefulness of comparison in oratory. If we examine the great sermons of distinguished preachers, we will find them full of metaphors, similes, and fetches of the identifying faculty. Take, for instance, Rev. Phillips Brooks, the great Boston preacher, and you will find examples of this power. His famous sermon, “The Candle of the Lord,” is a stretch of the identifying faculty from beginning to end. Man under the image of a candle is presented in all his relations to God. The power of similarity may express itself in simple illustrations and comparisons, or it may, by the aid of the other faculties, especially Sublimity and Ideality, carry out a grand image under which truth gleams in all its relationships. Brooks’ sermon just spoken of is an example of this kind. The image of a candle runs through the whole discourse, supported by beauty and grandeur of statement. It is one of those rare sermons which will rank its author among the greatest of orators.

I can not help remarking in passing that Phillips Brooks is a good illustration of all I have been inculcating under this subject, and, as he is within the reach of investigation, it may be well to mention some of his characteristics as an orator. He has a large head and strong physical development, but of that I will speak under the division of the physiological side of man. The most perceptible qualities in his oratory are fervor, grandeur, and vivacity. His fervor springs from his active brain and emotional temperament. The grandeur, dignity, and overwhelming impressiveness of his thoughts arise from the condition we spoke of before; they have budded and fruit-blown in the rich soil of sublimity. His vivacity springs from the intense excitability of his whole constitution; every faculty is not only active, but alive with passion. He does not merely think truth, he feels it. This is because he has all the psychological registers enumerated in this essay. He has also well-developed physiological and physiognomical characteristics, but of these we will speak hereafter.

PHYSIOLOGICAL SIDE.

We come now to examine our model orator from the physiological side. First, then, there is a temperament of body more favorable to oratory than any other. The vital-mental temperament is the best. I do not maintain that all orators have had this temperament—there are abundant examples of the mental-motive, motive-mental, and vital-motive. But the highest flights of oratory are compatible with the

vital-mental temperament. There should be an equal balance of the temperaments; no one should be extremely weak; but if any predominate, it should be the vital. The enormous strain of excitability, the intense mental effort, the dread of failure, the almost superhuman courage necessary to face a sea of faces, the tremendous vocal exertions, all eat and drink up the vital fluids of life.

The vital constitution is naturally excitable; it is the genuine emotional nature; it can bear heavy strains of passion-feeling, because passion is its food, and emotion its pastime. The vital temperament is characterized by great lung power and good digestion. There is an abundance of good hard flesh, and the blood is full, vigorous, and active. The great breathing power which comes from the large development of the organs of respiration and inspiration is highly essential to vocal delivery. The vital temperament is vivacious; every member of the body is active, every movement of the hands, eyes, and face is expressive. It is, in short, the Elocution temperament. Since all the vital fluids are vigorous and highly charged with the elixir of life, there is a constant stream of magnetism passing from this temperament through the voice, eye, and gesticulations. This temperament, therefore, gives an orator a mysterious power over his audience. What is called magnetism is merely a current of sympathetic feeling developed between the speaker and the audience. The orator who can awaken emotion in himself can awaken similar emotion in the listener, if the means

of communication are good ; and these are generally of a high nature in the vital temperament. It is the nature of good oratory to glow with feeling at all times, and the vital temperament is most susceptible to influences, external and internal, which produce feeling. The personal appearance of an orator of this kind of temperament is attractive and commanding. An audience is powerfully impressed by a well-developed physical form. The vital temperament has, as one of its great elements, the function of reproductivity ; to supply material for brain, muscle, flesh, and nerve, is its great office. There is, therefore, a fullness and repletion of all the elements of the body and brain in this temperament. This is of the greatest importance to the orator, not only in supporting the enormous strain of nerve and muscle to which he is subjected, but it gives that equipoise of body, that feeling of ease and repose to gesticulation and voice delivery which is called "reserve power."

An orator with this temperament performs all the functions of speaking with ease and deliberation. If we pass in review the great orators of ancient and modern times, we will find that the vital-mental temperament prevails in nearly all. Bossuet, Chalmers, Whitefield, Chatham, Fox, Webster, and Henry Ward Beecher are prominent examples.

It is also the constitution of great actors, because the vocal powers are generally well developed in this temperament.

THE VOCAL POWERS.

The capacity to deliver well a speech or discourse depends upon the vocal organs. In an essay like this I can not go into physiological details respecting the vocal organs. But I may state in passing that vocal-ity depends upon the muscles of the abdomen, the capacity of the chest, the resonant power of the larynx, pharynx, and mouth. According to the size of these organs, all other things being equal, depends the power of elocution. Each of these organs has its appropriate function in voice formation. No system of elocution can be successful if the function of each has not been carefully distinguished. It is the predominating power of one or more of the organs of voice over others which makes the difference in delivery. A large larynx, for instance, will give that deep, bell-like tone which is a characteristic of some speakers. Elocution teachers should not attempt to destroy this tone in their pupils, if it is natural, and they should not force it upon others if not natural to them; it is because this principle is overlooked by elocutionists that artificiality is oftentimes the result of elocutionary training. The training of the voice is of the utmost importance in speaking. The great national orators have had good vocal powers. Even if a speaker is endowed with a good voice it is necessary that he should keep it flexible and sympathetic by elocutionary training. Many of the great orators have had naturally good voices, but they were diligent in training them. This training,

however, should be conducted on scientific principles. There is method in everything. The various systems of elocution which have as yet appeared are defective in at least one principle, and that principle is a very vital one. Complete success can not dawn upon elocutionary training until this principle is complied with. Training of the voice is all very well, but after the voice is trained the element of expression should be studied. Now, all systems of elocution so far, fall short of a complete, satisfactory, and philosophical exposition of the principle of expression, because they have not studied man's constitution. True, accurate, and perfect expression depends upon how far the elements of that expression represent the faculties of the human constitution. In other words, a philosophical analysis of the human constitution should be at the basis of elocutionary training. This principle, when complied with, is productive of the highest results, as I could illustrate from my own experience. When we know, for instance, the natural language either of voice, gesture, or any one of the mental powers of the human constitution, we have a double method of procedure by which we can train that power to express itself in oratory. We can stir up the internal feeling appropriate to that power by bringing before it images, words, or actions which appeal to that emotion, or we can simply assume the language of the emotion without arousing the internal feeling.

There are present in all good delivery two characteristics: symbol and spirit, shell and soul, sign and

the thing signified. The most important of these is the spirit or soul. The undercurrent of all impressive oratory is the soul or spirit. Now, this is precisely what elocutionists nearly always neglect; they are so eager to teach the sign or symbol of a feeling that they do not take means to arouse the feeling itself. The soul or spirit of delivery can not be thoroughly trained without a knowledge of the human constitution. To know the powers intellectual and emotional of one constitution and their various states of activity from a low to a high degree of passion is of the utmost importance in the cultivation of those powers for the purpose of oratory. Elocutionists are wont to bring forward as proof of the efficacy of elocutionary training the practice of great orators; but the method of these orators has not been the same as those promulgated by modern systems of elocution. Their practice was more psychological. They took selections of orations or poems the sentiment of which was capable of kindling their emotions; and stirred by the internal feeling thus awakened, they delivered themselves. Hence their delivery was natural, not artificial. They did not assume gestures, tones of voice, but they strove to kindle the internal feeling which would prompt the right gestures and vocal intonation expressive of that feeling. We do not disparage elocutionary training, but we do think that a more natural method could be devised capable of arriving at more satisfactory results. The basis of this method should be an analysis of the human constitution. A thorough exposition of all the emo-

tions, passions, sentiments, and propensities should be made, and the gestures and tones of each clearly pointed out. The endeavor should be not merely to assume the language of the emotion, but to awaken the emotion itself. The basis of all good elocution is a real reproduction of nature. Bellowing and howling, dignified by the name of oratory, have, I hope, disappeared. The natural language of emotions and propensities when carefully studied will give the key to a graceful delivery.

We will not delay on this subject any longer; but there is one remark which we wish to make in passing. The vocal organs differ in size and quality in the different temperaments. The practice, therefore, of elocutionists in training every pupil exactly alike is a practice unphilosophical and ruinous to good delivery. Many a young man's delivery has been completely spoiled by being drilled in a way which was suitable only for some other temperament. The form and size of the vocal organs should also guide the training. While it is wise to preserve individual characteristics of voice, yet a harmonious cultivation of all the vocal organs should be the aim of Elocution.

We have seen, then, that the vocal organs are a great desideratum in the physiological endowment of the orator. A systematic study of the vocal organs should be made a part of the science of mind and character. This department I hope to see more fully developed by phrenologists. The vocal organs are so important in oratory, music, elocution, and acting, that a delineation of the character by artists in their

profession can not be complete and perfect without a knowledge of these organs. The success of a musician or orator depends as much upon his vocal as upon his psychological endowments. Besides, the various tones and inflections of voice are indicative of character, and ought, therefore, to be systematically studied.

It is easy to prove how necessary vocal power has been to the orator. The most distinguished orators on record have had good voices. The marvelous intonations of Demosthenes and Cicero still linger among the hills of Greece and Rome. Whitefield's wonderful voice representation, with its almost super-human power, flexibility, and intensity, is still in the memory of man. St. Chrysostom is yet remembered as John of the golden mouth, and Nestor as the clear-toned orator of the Pylians.

THE PHYSIOGNOMICAL SIDE.

This will not detain us long. Physiognomy is the judging of things by their appearance. The Creator, as He presents Himself to us, has a *personale* which is striking. We can generally tell whether a man is a great orator or not by his physiognomy. The oratorical type is marked. It is generally characterized by the vital-mental temperament, or by a constitution equally balanced. The face is expressive. Large language fills out the eye; facile gestures leave their impressions on the countenance. The forehead is generally large and wide at the upper lateral region, denoting intellect, and especially the development of

the organs of Wit, Ideality, and Sublimity. The propensities and sentiments are generally large, which give intensity and fervor to delivery. We can study his character from his gestures and vocal intonations.

In this analysis of the oratorical type, I have briefly sketched the prominent psychological, physiological, and physiognomical indications. To sum all up in a smaller compass, the oratorical type depends upon a rare combination of the powers of mind and body. The orator should have a large brain, active and passionate; a high, excitable, or emotional nature, supported by a strong constitution. There should be a predominance of the faculties of Language, Wit, Ideality, and Sublimity. This intellect must be strong and vigorous, with a predominance of the organ of Comparison. He stands midway between the poet and the philosopher; he must have all the poet's feeling, with the logic of the philosopher; but he differs from both in that his powers must be displayed in a moment. He has not only to feel thought and emotion, but he has to propel them into his audience. The propulsive power of an orator is the distinguishing feature between oratory and literature. A man may write out brilliant thoughts upon paper, but to deliver them is quite another affair.

Orators differ according to the degree in which they possess these powers. These varieties of oratorical type can be analyzed and their basis pointed out.

In support of the various principles laid down in this essay, we have but to take up the history of all the great orators, ancient and modern, and compare

their history with their constitutional development. The sculptured heads and shoulders of seven great orators ornament the upper part of the outside walls of Sanders' Theater at Harvard; they are the heads of Demosthenes, Cicero, St. Chrysostom, Bossuet, Chatham, Burke, and Webster. In all of these heads the faculties we have enumerated are largely developed; and if the shoulders are a just representation of the originals, they evidently had what we have called the oratorical temperament. But if the objector to this method of investigation is fearful lest these sculptured heads may not be exact reproductions of the originals, then we will take orators in our own neighborhood.

Phillips Brooks is, probably, the most popular preacher in Boston. His whole constitutional build complies with our principles. He has the oratorical temperament, large brain power, with a predominance of the organs of Language, Comparison, and Sublimity. In his sermons he displays a profound analytical skill; he seizes upon a particular conception of a text, and carries that conception throughout his whole discourse. No weak, puerile descriptions disgrace his sermons; there is profundity of thought with depth of feeling. Everything glows with sublimity, even his very delivery; it is a grand torrent from beginning to end. He sometimes wearies, because in his delivery there is too much of the grand. His voice has not the silvery clearness nor penetrating quality of Wendell Phillips, nor the compass, flexibility, volume, and expressive intonation of Henry

Ward Beecher, but it has a depth and grandeur of resonance, an intensity of enunciation, an animated and expressive utterance, a natural and sympathetic



HENRY WARD BEECHER.

tone, and, when vitalized and charged at the cerebral batteries of his large brain, sways an audience at will with an overwhelming current of magnetism.

He has propulsive power in abundance, and his great physical stature gives him complete control over his audience, which makes up for his defective voice.

Let us now take another illustration of a different stamp. Henry Ward Beecher, if not the greatest preacher of the age, is, at least, the most popular orator in America. He fully complies in every particular with the principles herein laid down. He has almost every faculty in the human constitution largely developed. Language is so large as almost to be a deformity. Wit, Ideality, and Sublimity are also large, and his analytical power is immense. His emotional nature is intensely active and passionate. There is original thought combined with intense feeling, not surpassed by any orator. He is very large in the faculty of Human Nature, reads the characters of men like a book, and the activity of this faculty he has increased by a study of Phrenology. His knowledge of the human constitution is one element of his success. He preaches to men because he knows just what is in men. His scope of preaching is wider than any preacher of our age, and perhaps in any age, with the exception of St. Chrysostom. He is practical, logical, and doctrinal; but the practical element is more emphasized by him. Full of illustrations and original thought, he never wearies. Age has not diminished his power. The streets of Brooklyn leading to Plymouth church are still crowded with people anxious to obtain standing room. On account of his independent thought, he differs in many points from his orthodox brethren; but the views which he enter-

tains resemble those of the new school of German theology. On account of his fertile imagination he never seems to get exhausted. His sermons are always full of new material and new illustrations. If these qualities are not connected with his large physiological development, then with what are they connected? His physiological and physiognomical developments are equally remarkable. Beecher has a well-balanced constitution, with a predominance of the vital-mental temperament. His stature is just a little above medium height, but his whole physique is firm and well knit. The quality and texture of brain, nerve, and body are good. His vocal powers are wonderful. He has a graceful and natural delivery, pitched on a conversational basis, but capable of the grandest flight of oratory. In every respect, Brooks and Beecher fulfill the requisites for oratory laid down in this essay.

I think it hardly necessary to enumerate more; but, if further examples are wanting, we have but to turn to England for them. There we find Spurgeon and John Bright, both examples of the vital temperament, and both fulfilling the psychological qualities mentioned.

In the treatment of types of character, I have attempted to condense a very large subject into a small compass, and the result is not as satisfactory as one might wish, but it is hoped that sufficient has been here stated to show that the phrenological system can be employed to advantage in analyzing types of character.

RELATIONS OF PHRENOLOGY TO MODERN
PHILOSOPHY.

In the course of this essay it may not be out of place to show the important relation Phrenology bears to modern sciences which have directed their attention to the study of man. Phrenology analyzes the genetic powers of the human constitution, and treats of their action singly and in combination. Now, it is evident that if Phrenology has separated the instincts and various innate tendencies in man and connected them with cerebral development, it must have an important bearing upon the evolution theory and the speculations of Darwin and Spencer. When Gall and Spurzheim gave their views to the world, the doctrine of the innate powers of the human constitution was at its lowest ebb. Hume, Paley, Hobbes, and others were the typical philosophers under whose yoke all men groaned. These philosophers reduced all our instincts, faculties, and everything which elevates us above the level of the dust, to mere bodily feelings of pleasure and pain. Notwithstanding that this doctrine seems absurd at the present time, it was then widely prevalent, because urged alike by skeptics and Christian believers. To face the supporters of this groveling and debasing doctrine was the task of Gall and Spurzheim. Unfolding a system of mental philosophy, which not only recognized instinct as a part of our mental constitution, but that all our faculties were innate, and not created by any law of habit or association. This doctrine did not escape

the venom of skeptics and Christian philosophers, who stigmatized it as a materialistic system destined to overthrow all belief in philosophy and religion. Its supporters were branded as heretics, charlatans, and ignorant quacks, and some of them driven from their native country.

Amid all opposition, however, the three faithful apostles of truth, Gall, Spurzheim, and Combe, spent their lives and fortunes in promulgating their principles. It is curious that some of this scorn and contemptuous neglect still continue to sway the minds of some even in our own day. Men carefully avoid stating that they derive any light from Phrenology. Yet many of the doctrines taught by the phrenologist have crept into the legitimate branches of anatomy and physiology, without credit being given to their authors. Many points settled by the phrenologist are being brought forward every day as new discoveries by the experimentalists. So valuable a collection of facts and truths as that embraced in the works of the phrenologists could not remain hidden, but found their way among the thinking public at large. And when once you affect the thoughtful class who constitute the readers and arbiters of philosophic truth, a pressure is brought to bear upon select and conservative schools of learning, and finally the philosophers of such schools find themselves secretly imbibing truths which openly they would reject with scorn.

Moreover, it is a deep principle, revealed by history, that truth must prevail, if not in the garb or

body in which it is at first set forth, yet when culled of its disagreeable association or presentation, it silently makes its way where it was zealously debarred. It was even so with phrenological truth. It was bitterly opposed on all sides, but somehow or other men began to find themselves using its nomenclature and speaking of innate powers as part of the human constitution which were entirely unknown to the schools of their fathers and which would have shocked conservative circles to hear mentioned as worthy of philosophical consideration. If any one wishes to verify this statement for himself, let him take up our modern philosophers, Bain, Spencer, Darwin, and see what they are willing to acknowledge as primitive faculties, and then compare them with the classification of their philosophical predecessors, and he will be surprised to find how many faculties are now thought to be a part of our constitution which before were totally ignored. It is a fact evident to all who have studied the phrenological system that many of the faculties which they were the first to analyze and describe have been secretly appropriated by metaphysicians and scientists without even an acknowledgment. The most honest and candid of modern philosophers in this respect, however, is Professor Bain, of Edinburgh, a philosopher whose books on the "Emotions and the Will" and "The Study of Character" entitle him to a very high rank among that class of philosophers who have directed their energies and investigations to the solution of the difficult problems of the most useful of

all the sciences, the science of human character. But it will become evident to any careful reader of Phrenology and of Bain's works that much of his reasoning and classification has been drawn from or suggested by the fathers of Phrenology.

INFLUENCE ON MODERN THOUGHT.

The doctrine of the innate powers of mind as taught by the phrenologist has great value in any system of morals, hence Combe's "*Moral Philosophy*" and "*Constitution of Man*" were the natural outcome of his study of Phrenology, and as these books were widely circulated in their day they have had an influence direct and indirect on our modern ethics.

Another science, the science of Ethnology, has had a flood of light thrown upon it by Phrenology. Under its principles this science has assumed a sure and definite character. The characters of the various races of men have been analyzed and classified. Regional phrenology has been accepted as an indispensable element in the study of this science, even by those who object to organological phrenology. The classification of the characters of the people of the various nations has an important bearing upon the art of diplomacy, and it would be well if this department were more thoroughly developed. The revival at the present time of the study of innate powers by Spencer and others is a movement if not due to Phrenology is at least anticipated by Phrenology. The views of Spencer and modern scientists, that, no matter about the genesis of the faculties, we have in-

instincts which are closely related to those in animals—thus that the instinct which causes the squirrel to hoard his food is that which in man gives the love to acquire property—is nothing more than what Phrenology taught years ago. The modern scientists take up some of our instincts and discuss them somewhat in detail, but much of what they say can be found in the works of the phrenologists. It is not my aim to prove that modern scientists have not added anything to the science of mind either in the way of clearer definition or demonstration; far be it from me to slur in the least the earnest effort of modern philosophers to solve the different problems in the science of character, but in the name of impartiality I do protest against all egotistical efforts on the behalf of modern philosophers to glide over or ignore the truths of Phrenology to which they are indebted directly or indirectly.

The phrenological system has still much to offer modern science which can be pushed aside only to the detriment and delay of the study of human nature. The genetic faculties of the human constitution are not only analyzed and described by the phrenological system, but they are connected with cerebral development. Suppose we deny the truth of this cerebral connection, we can not shuffle aside the facts they have accumulated. These facts were collected during the lifelong labors of men of marked abilities for scientific investigation, and therefore deserve our careful attention. Each instinct is separately considered, minutely described, and appropri-

ately illustrated by facts gathered from the observation of the habits not only of men, but also of animals. The tendency of these facts is to support the principle that mentality depends for its manifestation upon cerebral development, that from the lowest to the highest creature living there is a dependence upon cerebral structure, that in the lower species the brain and nervous organization are smaller in size than in the higher. There is not only an advance in development of the encephalon as a whole, but there is a marked difference in the development of the respective parts themselves. Thus, for instance, phrenologists find that the parts of the encephalon which they connect with different instincts are wanting in some and present in other animals, as in the case of the instinct of locality, which gives a knowledge of distance and direction, is large in birds which leave their homes for foreign countries in seasons when food can not be obtained, and is small in those birds which prefer to perish at home rather than fly to distant parts. So also the beaver, noted for its constructiveness, has that organ large. The squirrel is an acquisitive animal and has the organ of Acquisitiveness large; while many animals that do not construct houses or lay up food for themselves are deficient in these organs. The cock has the organ of Combativeness large and is noted for his pugnacity.

Spencer discusses at particular length the relation of the inner to the outer environment. It seems to me that from the basis of the phrenological system a similar doctrine could be deduced. The phrenolo-

gists do not express their views in terms of the relation of the inner to the outer environment, but they have given facts with respect to the action of the faculties which are well worthy of consideration at the present time. They hold that all the faculties they have discovered are not mere passive sensibilities, but all tend to actions, the larger having greater tendency to act than the smaller. These faculties can not be called into action by the influence of the will; we can not fear, love, hate, or pity simply by willing it, but internal or external causes may stimulate the nerve-centers, and whether we will or not the emotions will be felt. As, for instance, how often do we feel an uncontrollable trembling of the body and signs of fear when placed in circumstances of danger. This is because the instinct of cautiousness is awakened by the circumstances of the outer environment which has the appearance of danger. In this and other cases we have the action of the outer phenomena upon the inner instinct and the corresponding effect, fear, which follows. There is a doctrine taught in one of our prominent universities (Harvard) that the signs, such as the trembling of the body in fear and the billing and cooing of some animals in expressing love, are not simply manifestations of innate powers, but are the very powers themselves. Notwithstanding that this doctrine is supported by one for whose learning and philosophical talents I have the deepest respect, yet it seems to be extremely absurd. It seems to me that such philosophers confound the sign of an organ with the organ itself.

NATURAL LANGUAGE OF FACULTIES.

Every instinct has its own peculiar language, and the very fact that the language itself differs would prove a difference of instinct or emotion behind this language. The language is the effect of the excited instinct, it is its natural expression, but the language is not the instinct itself. Thus the varied language of Amativeness: the billing and cooing in pigeons, the petting and caressing among animals, are not the amative propensity, but only its natural language. The crimson blush which steals over the cheeks of a modest maiden is the expression of self-consciousness or active love of approbation, but it is not the faculty itself. The true principle is rather that the instincts and their manifestations form a cycle. The excited instinct manifests itself in its own peculiar language, and this language by a sort of reflex action excites the instinct, so that when the language is presented to an instinct or emotion, that instinct or emotion will be awakened and will express itself in actions of the body or the voice. We have here a principle which in application is of the utmost importance especially in elocution and oratory, for we may arouse the emotion, not by willing that the emotion should be aroused, but by assuming the language of the emotion. The best way to feel angry is to put ourselves in the environment necessary to produce anger, viz.: assume the gestures of face and body and the tones of voice which are the language of anger; this gives the external manifestation of anger; the internal will

be developed by the external, and also by putting oneself in mental attitudes which stimulate anger, *i. e.*, to think over all the reasons we have for being angry, the slights we have received, etc. If we wish to restrain anger we withdraw ourselves from all the attitudes, both external and internal, of anger, and endeavor to stimulate the emotions which are of an opposite nature to those of anger. Although few phrenologists have treated the expression of the instincts in this way, yet I think I am justified in drawing such deductions from their mental classification.

Phrenology throws light also on that puzzling question in psychology, how it was possible to feel anger and compassion at the same time. Any one who has studied himself or other people carefully, will find that there often rages in our bosoms at the same time two or more instinctive promptings—voices let us call them; one calls in one direction, while another prompts in just the opposite direction. Shakespeare, with that natural poetic instinct which has often put to shame the metaphysical philosopher by its deep insight into human character, illustrates this principle in the case of young Gobbo, whom he represents as in great perplexity whether to obey the voice of his conscience and return to his master the Jew, or follow the voice of his feelings, or, as he calls it, the council of the fiend, and run away.

So we have often felt the desire to punish an offender and have felt at the same time an instinct of kindness calling on us to spare the guilty, and thus there is in our constitution, in general, a conflict of

instincts which restrain each other. This doctrine of the mental combat of instincts is due to Phrenology, and is in harmony with observed facts and the common practice of mankind. Nor does Phrenology stop here ; it settles that most important question in ethics, which instincts in our nature should have the supremacy ; it shows clearly that the highest development of our race consists in harmonious organization, and that in order that there may be harmony the higher faculties should prevail.

BAIN DISCUSSED.

It was my intention to have discussed Prof. Bain extensively, but I am sorry to say that space and time will not allow me. In his book on the study of character, he begins by stating that he will give the analysis of the human character according to the phrenological system. It is to be regretted that Bain did not carry out his intention. While he gives the organs and their location according to the phrenological method, the facts supporting the location of these organs and the nature of their functions he does not give according to Phrenology, but steers out into a system of self-conscious reflection upon each individual organ, and attempts to show the errors in the classification. Now, this would not have been objectionable if he had not stated that he would give the phrenological system. He would have dealt more fairly with Phrenology if he had reserved his criticisms and made them in connection with his own system. It is not a matter of great importance to those

who have studied the systematic works on Phrenology, but it has a tendency to mislead the novice in phrenological principles who is apt to believe that all the evidence which phrenologists bring to prove each organ is given by Bain and annihilated by him. Yet I have many objections to make against Bain's criticisms of the faculties thus presented, but have not time to do so. As a systematic exposition of character Bain's book is a successful production, and shows how far a person of intelligence can become a phrenologist even by a system of mental introspection. Bain could be taken as a fair phrenologist, though he professes to steer clear of such methods of investigation; but to take his book as one of the best phrenological books, or as the best on the study of human character, would be a great blunder. No one can form a correct estimate of Phrenology by a perusal of Bain. He proposes to follow the self-conscious method of investigation. He admits the correctness of the phrenological method, but refuses to follow it because too laborious. Now, this is the secret cause of the errors he falls into himself, and of the mistakes he makes in attacking the phrenological classification. Let no one therefore imagine for a moment that Bain has taken up the gauntlet thrown down by Gall and Spurzheim during their career and as defiantly thrown down by all phrenologists since. No, Bain does not undertake to prove Phrenology imperfect by methods of induction, but by self-introspection. Those who are doubtful as to the efficiency of the self-conscious method to determine the genetic powers of

mind, I refer to what I have said upon this subject in the early part of this essay. I must hasten to give a concise criticism of Bain.

Professor Bain having stated clearly the method he intended to pursue, gives the phrenological organs in order and files objections against some and acknowledges others as correct. His main attack is on the description of the functions of the organs given by the phrenologists. Now, it appears to me that much of the discussion arises from the difficulty the phrenologists found in getting words to define accurately the functions which the observed facts indicated. Such confusion occurs in every system and is not confined to Phrenology. Still there is a seeming injustice on the part of Bain, because he does not acknowledge that many of the points he treats and the objections he makes, were already discussed among the phrenologists themselves; and because the arguments which Bain uses, giving his readers to understand that they are the products of his own mind, are in many cases arguments which were brought forward by the phrenologists themselves in their endeavors to get a terminology to correspond with the facts observed.

The phrenologists have avoided as much as possible mere strife of words; it is the facts alone they concern themselves about; so even if Bain's criticism has succeeded in anything it has not been in disproving the facts or principles of the science, but only some errors or cross-divisions of function of the organs. If Bain had given the phrenologists a better

terminology, he might have done something; but while he has shown much ability in endeavoring to tear down the fabric erected by Phrenology, he has not shown unerring skill in his reconstruction of the system.

I have said that many of the objections urged against the phrenological classification and organology by Bain may be found in the phrenological works themselves. Thus, for instance, Bain has long discussions to make about whether the absence of one faculty would lead to the manifestation of the opposite function, as, for example, if Combativeness were absent would timidity or fear be the consequence, or is it necessary to have a new organ for fear under the name of Cautiousness? Now, this mode of discussion is found among the phrenologists themselves, and if Bain had taken the trouble to look into Gall's works he would have found that Gall had the same opinion as he himself entertains. So also Bain thinks that the organs of Size and Form ought to be made into one and called extension or space. But if he had consulted Gall and not confined his reading to Combe he would have found that Gall had already denominated these organs as extension or space. Many other points which Bain brings up as objections to be made against Phrenology are really not objections against the science, but against some of the metaphysical disquisitions of George Combe. Indeed Bain, in many of his arguments, shows much of the same acumen as is shown by almost every person who begins the study of Phrenology, but has not

sufficient leisure to pursue it according to its methods of investigation. He constantly betrays his insufficient knowledge of the fathers of Phrenology, and oftentimes he gets involved in his own metaphysical subtilty and can not disengage himself from it. Then again he forgets that he had started out with the intention of evolving Phrenology from the internal depths of his own self-consciousness, and makes statements and arguments which can only be drawn from observation. Indeed, his system is a mixture of two conflicting elements. Bred in the schools of philosophy which recognized the introspective method as the only process of investigating the mind, he seems at one time about to throw off its trammels and soar on the wings of induction into the region of clear proof, then he suddenly flops down again and is willing to accept as proved many things which the general consciousness of man can not harmonize. Thus while he agrees that many of the instincts and propensities recognized by Phrenology are innate powers in the constitution of man, self-consciousness testifying to the fact, he makes exceptions to some, and yet it is peculiar that many of those organs which he accepts are ones less clearly demonstrated by the introspective method.

ILLUSTRATIONS OF BAIN'S METHOD.

For example, he is willing to recognize, nay, he is absolutely positive, that Alimentiveness, which gives a taste and relish for food, is a primitive faculty. It is a favorite method of his, upon other occasions, to

show that some of the phrenological faculties are explainable by supposing their seat to be in the body and not in the brain centers. Now, what faculty is more connected with the body than Alimentiveness? Could we not account for the love of food and the desire to satisfy hunger and thirst purely from bodily feelings? The claims of the body for food and drink are imperious. The stomach gnaws with irresistible craving for something to feed upon, and the sense of want may be nothing more than the desire of an empty stomach. And besides, the love and relish for different kinds of food may be only the result of the delicate discrimination of the tongue. The existence of an organ of Alimentiveness is, therefore, by the self-conscious method of argumentation which Bain skillfully employs upon other occasions, totally unnecessary.

There are many other organs which Bain acknowledges which could be objected to upon the evidence of self-consciousness; but I must hasten to consider some other of his statements. He displays a very confused conception of the two phrenological organs of Love of Approbation and Self-esteem. He thinks that as presented by the phrenologists they neutralize each other. He can not see that there is any great difference between being confident of our own powers and esteeming ourselves, our personal identity and all we call our own, as anything distinct from the instinct of approbation, which desires the praise of others. Now it seems to us that there is a clear and necessary distinction made here by the phrenologists, which

Bain fails to grasp. It is something very different to have a selfish pride in our own abilities, and to desire the approbation of others. In other words, the ego-tist who is satisfied with himself and cares not a straw about the opinions of others, is different from the sycophant, who desires to be esteemed by others, and whose character manifests itself very often in vanity and in a fawning, cringing disposition. There are persons who, rather than be deprived of the esteem and praise of others, will surrender their own views and adapt their conduct and opinions to please those whose commendation they value. Cicero is a good example of those whose character is influenced by the love of approbation; he was always troubled about what the people, and especially what future generations, would say concerning him. Much could be said regarding the marked difference between the conceit which makes us esteem all things belonging to us and the vanity which desires the praise of others; but I must glance at some other of Professor Bain's exceptions to Phrenology; for instance, his comments on Philoprogenitiveness, Combativeness, Secretiveness, and Acquisitiveness.

PHILOPROGENITIVENESS.

In the treatment of this organ, Bain pursues his usual method of trying to account for all the manifestations ascribed to it by Phrenology. He very elaborately argues that the function of Philoprogenitiveness, pure and simple, is so narrow in its scope that the organ may be eliminated from the analysis of the

human constitution. In his mind, the love of the beautiful, the tender sentiment, the sentiment of power, the habit of bestowing care, the scope of ideality, and the self-regarding sentiments generally, all concur in producing the parental emotion.

Now, let us examine for a moment the effect of all these powers to produce parental love, and discover, if we can, whether they account for all the feeling embraced under this organ. In the first place, Bain wishes us to understand that one element in parental love is the parent's love of the beautiful; that is, an infant or grown child is so full of natural beauty that a mother can not help loving it; in other words, the mother's attraction toward the child is because it is beautiful. There are but few parents who would concur in such an explanation of their love.

How often does parental love manifest itself more strongly in tender and affectionate regards for their most deformed and homely offspring. The cripple, the ill-favored daughter, are oftentimes more loved than the sound and well-formed children. The tender sentiment might form an element in the case of deformed or weakly-developed children as a motive of parental love; but why should it operate exclusively so as to produce that pride and anxious love which one has for their own offspring? Under the promptings of the tender emotion, mothers ought to love other children as well as their own. The tender emotion, from its very nature, does not seek out any one particular object on which to bestow affection. It is the feeling which is an element in the love one

individual bears to another, irrespective of age or sex. Why, therefore, should it give rise to exclusive love for children, which is a characteristic of a true mother? The sentiment designated tender emotion by Bain is too general in its scope to offer any solution of the problem of parental love. It is one of those metaphysical terms, like memory and perception, which embraces too much to be of any practical use in an analysis of mind. What we want is not general terms, but individual elements. We are seeking the root-germs of those feelings which build up the vast fabric of human thought and activity. Tender emotion has no specific direction; it is as much an element in Amativeness, Adhesiveness, Benevolence, and Conjugal Love as it is in Philoprogenitiveness, and therefore fails to account for parental love even when taken in combination with the other sources mentioned by Bain. Nor does the sentiment of power explain all that is embraced under the organ of Philoprogenitiveness. To say that a mother loves her children because they submit to her authority, is an assertion which few mothers would admit; oftentimes the most disobedient and unruly are not only loved, but are even enviable pets. And it is also a truth, which every observer of human character has witnessed, that mothers in whom parental love is strong spoil their children through overweening affection. Besides, we have here in this endeavor of Bain to account for parental love by other sources than a pure and simple instinct, a combination of the most conflicting sentiments, all operating as elements to

produce a feeling of affection for one object. Where has Professor Bain bestowed his metaphysical consistency in this case? We are asked, first of all, to regard the love of children as a product of the sentiment of the beautiful; then comes in tender emotion, and then that most antagonistic sentiment—the love of authority; and all these are to concur in producing parental love. When we reflect that each of these sources, singly and in combination, may all be directed alike to love any person, how can we say that they account for that strong feeling in a true mother's breast which history and observation show burns with an undying brilliancy, which has made many a woman lay down her own life for her offspring?

If we leave metaphysical speculation for a moment and apply a little common-sense observation, we shall find the organ for the love of offspring fully established; but Bain objects to the employment of observation. He puts aside the evidence supplied by Dr. Gall and says that the old method employed by metaphysicians is the best way to solve the problem. This method consisted of a series of questions addressed to the consciousness or experience of mothers. Now, upon what authority does Bain declare this to be exclusively the metaphysical method, and not recognized by phrenologists? In addition to observations made upon the cranium of persons noted for peculiar talents, Drs. Gall, Spurzheim, and Combe not only interrogated these persons individually as to their characteristics, but also instituted inquiries among their friends and neighbors concerning the traits

of character of the persons examined. Now surely this method, if not the same as that employed by the old school, was a great deal more scientific, inasmuch as its field of operation was wider and the opportunity to make and verify such interrogations exceedingly good. Here Bain evidently has made a vigorous attempt to destroy the organ of Philoprogenitiveness by the self-introspective method, but without success; and, finding that metaphysical subtlety can only offer a few suggestions which might account for parental love, he begins to feel the necessity for some surer ground, some more definite proof, a feeling which many an astute philosopher has felt before him; but unfortunately Bain seeks that proof in a return to the old school of metaphysics, and declaims against Dr. Gall's method.

If it were not for anticipating matter which I will treat of hereafter, I would show how inconsistent Bain is in making this statement when contrasted with certain admissions or concessions made to Phrenology in other parts of his book. It is evident that at this stage of the discussion Bain does not grasp the full value of Gall's method of investigation. He does not clearly see that the highest proof we can have for anything is positive and negative proof. It is strange that one so fond of mathematics as Professor Bain can not comprehend how valuable the signs plus and minus are. What more convincing proof can be found than positive and negative evidence? Since the days of Gall his method of proof has become in experimental philosophy the predominant and al-

most the sole one, with this difference only: whereas Gall took his subjects for examination as nature supplied them, the experimental school produces artificial subjects; but the evidence is the same in both cases, positive and negative. For explanation of this proof and an estimate of its value, I must refer the reader to an earlier part of this essay. If we have failed to arrive at a knowledge of an organ for parental love by self-introspection, there is nothing left for us but to fall back upon Dr. Gall's method.

By a series of observations instituted upon men and women noted for their love of children and those not remarkable for such love, Gall has laid before the scientific world facts which strongly prove that the love of children is an innate power in the human constitution.

The experience of all phrenologists since Gall points to the same conclusion. It has been my lot to meet many exemplary mothers who loved their children even better than their own lives. In all of them the phrenological organ was large. They would have repudiated with scorn the insinuation that they loved their children because of their beauty, or because they were submissive to their authority; they loved them as the magnet draws the filings, because there was a bond of union. This bond of union was an instinct in them which caused them to love their own offspring as such. I do not wish to extend this discussion any further; but would it not be interesting to attempt to apply Bain's hydra solution of parental love to account for the strength of that function in

some animals? Does the cat, for instance, love its kittens because they are beautiful or submissive to her authority? And does the cuckoo lay her eggs in another bird's nest and take no further care of her young because she is afraid they will not be beautiful or will not submit to her authority?

COMBATIVENESS.

The function of this organ Prof. Bain elaborates fully and clearly. He is almost persuaded that it is properly localized, and is inclined to recognize it as an element in our constitution. His exposition of its scope and function is masterly, and shows a power of keen analysis. He discovers the combative propensity to be made up of two distinct ingredients: the superabundance of central energy, and the love of power in its most wide guise: successful rivalry. He criticises George Combe's definition of Combative-ness at certain stages of his delineation of this organ. But it seems to us that the objections to Combe's definition urged by Bain spring from a failure upon the part of Bain to comprehend exactly what Combe intends to convey; in other words, Bain puts an unfair (not intentionally, Bain is too much of a Scotchman for that,) interpretation upon Combe's definitions.

When Combe declares that the propensity of Combative-ness is necessary even for philanthropic schemes, he does not mean the pure pleasure of fighting, but simply means that Combative-ness supplies courage in advancing those schemes, and the power to resist all opposing obstacles. There is no difficulty, as

Bain declares that there is, in ascertaining whether a man is combative or not when a motive influences him to undertake some courageous enterprise. There are motives which enlist every faculty of our constitution, and yet we do not find any difficulty in separating the adjuncts or supports of that motive. We know perfectly well, for instance, that Luther was exceedingly combative, and that Melancthon was not. There was the same motive: both sought to reform the Church, but both were not equally bold. Luther feared neither man nor devil, but Melancthon shrank back even from a public avowal of his faith. When the combative Luther was by his side, Melancthon displayed a good deal of courage; but when Luther died, Melancthon completely broke down. Now here were two men, both inspired by the same motive, yet the difference of their combative spirit was very great. Was not the combative temper of Luther of immense aid in propagating his religious reforms? There is no difficulty in deciding which was the more combative, Melancthon or Luther; for the physical development of the back-head of each is a perfect revelation.

A mere novice in portrait-reading ought to be ashamed to say that he can discover no difference between Melancthon's and Luther's Combateness. We would differ also, in some respects, as regards the definition given by Prof. Bain that the combative principle is the love of power in its most wide guise, successful rivalry. That there is an element of power in this propensity we admit, but it is different from

the power enumerated under the function of self-esteem.

It is a power of resistance to aggression, not a feeling of authority. The feeling of triumph which arises whenever a successful combatant defeats his opponent is incidental to the combative propensity, and would arise upon the success of any other of our faculties. The martial ardor displayed by troops, the love of debate, the spirit of contention which characterizes some men, is the real element in Combativeness rather than a feeling of power. And if Prof. Bain would carefully ponder the definition given by phrenologists, that all our faculties have various degrees of activity, from a low state of manifestation to a high or passional state, much of the confusion incident to criticising the phrenological analysis would vanish. Combativeness may, for instance, sometimes only display the simple element of resistance, or it may give way to a higher state of activity, exemplified in a spirit of aggressiveness, or it may become intensely passionate, and develop a pugnacious spirit in which the love of fight rules supreme, and outweighs all other considerations. It is not, therefore, necessary, as Bain seems to think, that when we speak of an element of pugnacity, that that element should prevail upon all occasions.

In the case, for instance, of a John Howard being aided in his philanthropic measures by a combative spirit, it is not necessary that we should find the pugnacious element, but simply the element of resistance displayed. We could extend these remarks

further, and meet some other of Bain's objections under this organ, but we have a wide field to cover.

SECRETIVENESS.

As we have dwelt at some length upon Bain's method of argumentation in our treatment of the organ of Philoprogenitiveness, we can not repeat his arguments in connection with Secretiveness, nor can we discuss his objections in detail. He asserts, however, his unbelief in Secretiveness as a distinct element in our constitution. His proof is simply the same old story: he thinks that the habit of forethought, experience, and prudence will account for all the difference found in persons with respect to the manifestation of Secretiveness. We admit that habit and experience do develop Secretiveness; but at the same time, every habit of a specific direction must influence some nerve-center. Habits never originate the germinal elements—they can only cultivate those elements. Granted an instinct to conceal or secrete, and we can easily conceive of a person's increasing that capacity by habits of association, by prudential spirit derived from pleasure or pain or from experience; but how that instinct can be created by these habits without having a cerebral center is puzzling. If the tendency to conceal is so distinct an element in character that Bain confesses that even he has observed that some have more of it in their character than others, it seems as if there ought to be a cerebral center; for in the first place, it is a well-known truth of physiology, that whenever an action or move-

ment, bodily or mentally, is made, responsive muscles or nerves take on the impress of that action, and become larger or more compact. That is, there can be no feeling, thought, or emotion developed without affecting responsive nerve-centers, so that these nerve-centers or brain convolutions must take on a change of structure, either an enlargement of the cells of the brain convolutions, or become firmer in quality. Now, suppose we develop Secretiveness by association, prudent conduct, experience, or any other method of the psychologist, where do the impressions heap themselves up—all over the brain, or in one quarter of it? If all over the brain, then Bain may be correct in assigning Secretiveness to habits of association of other faculties, but it is highly improbable. Nerve-centers do not perform dissimilar functions. There is, as far as we can discern, special cerebral centers for special functions. The best way then to solve a difficulty, like the problem of innate Secretiveness, when the psychological method has failed, is to follow up investigations after the method of Gall, into the function of certain parts of the brain. These investigations, as carried on by phrenologists, may well make us pause, and consider that if we would only all set out with zeal in pushing on a method which has discovered so much, we might soon bring to perfection the science of mind and character.

Our own observation of men and animals, and also self-introspection, has revealed, beyond dispute, the fact that some animals are noted for cunning and

some are not. If habits, or prudential measures, or experience, had anything to do by way of creating this secretive propensity, then why did it develop in some and not in others? Why, for instance, should races of animals living in the same region, in the same environment, and subjected to the same kind of dangers, yet display entirely opposite characteristics in this respect? We can only solve this question by saying that those animals noted for their cunning or Secretiveness possessed it as an inborn element in their constitution, which their manner of life helped to bring out and cultivate. Those who are not remarkable for this quality must have had but a slight endowment, or none at all. There is no reason, then, why we should not examine the data laid before us by phrenologists, and add to it as much as we can accumulate by observation, and decide this question upon such evidence.

ACQUISITIVENESS.

In Professor Bain's discussion of Acquisitiveness there is nothing new. It is simply the old metaphysical method of accounting for this function by the love of power, the necessity of accumulation, or the benefits incident upon the acquisition of wealth. He asserts that all of these influences operating separately, or in combination, will produce the function of hoarding assigned to the organ of Acquisitiveness. If it were permitted me to meet Bain by a reference to the phrenological methods of proof, it would be an easy matter to dispense with all his objections at once.

But as I said I would meet him on his own ground I am obliged to discuss the point metaphysically. Nevertheless it will be impossible to go over the whole range of metaphysical subtlety in the discussion of each organ. Much of the argumentation which I have employed under the discussion of the functions of other organs is applicable to this. I can, therefore, only mention a few strong points which lead us to infer that the function of Acquisitiveness is a real element in the constitution of man. It is obvious to all that many individuals possess an exceedingly avaricious spirit, not only in great matters, such as wealth-power, but even in small things. Some are greedy and avaricious for mere trifles, which have no value in themselves, and do not exalt those who possess them in power or influence. We can assign no motive whatever, and, least of all, any of the great motives mentioned by Bain, to account for this avaricious disposition. How many persons, for instance, keep a tight hold of everything they acquire, from a golden fortune to a cast-off garment ! There is no real necessity in the retention of many things which the wealthy retain. The love of power, the necessity of existence, ought to weigh equally with all classes, yet we find a vast difference between men in the hoarding capacity. Some people hoard where there is no possibility of gaining popularity and power, and where the necessities of life are even sacrificed to the all-engrossing passion for accumulation. The character of the miser, pure and simple, can not be accounted for by any of the principles laid down

by Bain. The instincts of animals also throw much light upon this subject. We must admit that the necessity for existence is equally important to an animal life; yet the squirrel, the bee, and the ant are more acquisitive than a very large class of animals. Shall we trace this acquisitiveness in the squirrel or bee to the fact that they have more wisdom to see the necessity of laying up a store for the coming winter? This is hardly the case, for the animals which do not acquire are just as intelligent as those who do. The difference is in an elementary instinct. That is the way the squirrel, bee, and ant provide for themselves. Other animals may make provision for themselves in some other way.

There is, again, the feeling of kleptomania, or shop-lifting, which is practiced oftentimes by those who have all the wealth necessary to give them power, influence, etc. To say with Bain that these are merely eccentricities, does not materially alter the fact. We are as much required to explain upon what such eccentricities depend, as to explain the generic function of any organ. Then, again, if the principles laid down by Prof. Bain are capable of inducing the propensity to hoard, and the more these influences sway a person, the more acquisitive that person will become, the question may reasonably be asked, how is this acquisition recorded? Why does the function become more keen the more it is exercised, and what part of the brain is called into activity in order to record this development? Bain might reply to this question that no particular part of the

brain was exercised, but all parts. Then we would have the phenomena of the brain performing as a general function that which has a specific application. In other words, as Bain has previously admitted, that there are cerebral centers for primitive functions which are exercised by giving full scope to operations which develop them, now he declares that a function which is seemingly elementary is performed by the brain as a whole. We will then have to establish general functions as well as individual functions. Now, we can conceive of the mind acting as a whole in the operations of such general functions as those of conception, memory, etc., because they are only general processes connected with all the organs; but when we are asked to consider the mind as acting as a whole to produce a hoarding spirit, it seems to be a direct violation of clear metaphysical analysis; for, as I have said before, there is a physiological law that when a function is exercised the material organ of that function becomes larger or increases in quality. Now, does the whole brain become larger or more compact in order to take on a development of acquisitiveness, or would it not be more reasonable to suppose that a certain cerebral center recorded this acquisitive development? Remember, a spirit of avarice is a totally different thing from a law of association or habit. We can conceive of such laws training and educating all the faculties and leaving a general impression on the physical organism; but when it comes to the fact that we have to make a feeling or propensity so elementary as that of acquisition, a

general power similar to these, it demands more metaphysical demonstration than Prof. Bain supplies.

It may be said, however, that Bain does not imply that the acquisitive faculty is a general power, but simply a specific habit generated by the influences which he has enumerated. The answer to this is obvious. All habits, as far as we know, leave their impression on the physical or cerebral organism; thus, for instance, if we exercise any part of the body, that part becomes more compact or larger, and hence an increased capacity to perform the function follows upon this increase. So, if we exercise the organ of Comparison, there will be an increase of the analytical function due to an increase in the size or quality of the cerebral organ on which it depends. So if we start with an organ whose function is mere brute acquisition, without regard to the end or object of these acquisitions, we can conceive of its activity being increased by the motives enumerated by Bain, and that such an increase could be recorded by this organ. But when we are asked to conceive of a propensity so elementary as the disposition to hoard to be entirely originated by certain general influences, there is no reasonable explanation,—it is like expecting soil to bring forth flower and fruit where there has been no seed planted, because the sun and rain have been beating upon that soil. This whole question of how far general laws or individual influences can create specific or elementary functions is a puzzling one to the metaphysician, and I can not enter upon it here in detail. It is sufficient to say that the psychologi-

cal method of accounting for individual differences of function by operation of general laws has failed upon many occasions. The psychological analysis produced by this method has had to change its fundamental powers repeatedly. The tendency at present is to rely less upon general laws for a solution of individual characteristics, and to ascribe them to fundamental instincts. Our impression is that there is an innate propensity to hoard in the human constitution.

We should like to take up Bain's exceptions to the other phrenological organs in detail, but we must hasten to discuss a very important division of Bain's book,

"THE OMISSIONS OF PHRENOLOGY."

Professor Bain has a chapter devoted to the subject of "The Omissions of Phrenology." Many of his comments and suggestions in this chapter are highly valuable, and demand careful attention from the advocates of Phrenology. I think, however, the title of his chapter is misleading, as it seems to imply a willful rejection by phrenologists of the points he discusses; whereas the truth is simply this: Gall and Spurzheim were introducing a new method of investigating mind and character, and so, in arranging the mental analysis of the human constitution, some things were overlooked by them for the time being. These omissions are natural, and are incident to all sciences in their early stages of development. Of such a nature are the muscular feelings, which Bain declares the phrenologists have slighted. It is true that Drs.

Gall and Spurzheim have not gone into detail in regard to these feelings, but we must recollect that physiology was not so fully occupied in investigating the important relations which the muscles and nerves of the body sustain to mental excitability in the days of Gall as in our time. The same may be said of the vocal powers and the department of sensation—including the senses of taste, sight, smell, and the tactile sensations of the skin—which Bain mentions as omissions; they are all departments of physiology, and ought to have been carefully treated by physiologists; but as this had not been accomplished in the days of Gall and Spurzheim, the omission is not one of willful rejection, but simply of unavoidable neglect. Nor is there anything in the treatment of the points proposed by Bain incompatible with or antagonistic to the principles of Phrenology, because Phrenology does not confine itself to psychology, but also includes physiology. Whatever suggestions, therefore, physiology has to make may be embodied by Phrenology as a part of its analysis of mind and body. In fact, some departments enumerated by Bain as omissions have been duly emphasized in the light of modern information by the phrenologists who have followed in the paths of Gall and Spurzheim. Professor Bain is an enthusiast in the department of muscular sensations, and has made an extensive study of the subject. Many of his suggestions are valuable, and can be allowed a place in the phrenological system without detracting in any way from the honor due to the early phrenologists. Still we can not

concur with all he brings forward in the chapter under consideration. It is impossible, for instance, for those who have been trained to the keen analysis fostered by the phrenological method of investigation to agree with Bain that the functions of the organs of Color and Form are implied in the functions of Locality, Size, and Individuality. Whatever errors have been made by phrenologists in their exposition of these organs, it is true that close analytical reasoning and investigation are in favor of a distinct and generic function for each of the organs enumerated. We can not say, for instance, that we remember the location of places because of their color, size, and form. There is implied in the function of Locality, elements of distance, position, and situation, which can not possibly be covered by form or color. I know that the metaphysical school lays great stress upon the element of color as a factor in the estimation of space, but observed facts do not sustain this conclusion. If a person were asked why he found his way so readily to a certain place, he would hardly reply that he recognized the colors or forms of the various objects on his way; these might be accidentally observed; but the place was in his mind as a sort of mental picture as a whole, and not in individual traits such as those supplied by form and color. When we start out to go to a place where we have been before, we have a sort of natural intuition of the place with respect to situation without any regard to individual characteristics either of color, form, or size. On the way, however, we may recognize these

individual phenomena as a confirmation that we are treading the right path, but not as forming our specific notion of locality.

The omission of a separate treatment of the vocal powers in connection with the phrenological system is to be regretted, and I do not think modern phrenologists have done this subject full justice. Yet Professor Bain has only succeeded in throwing out a few hints in this department; he has proved nothing, neither has he systematically treated the vocal powers in their relation to the human constitution. We consider that the omission of the topic of vocality from any system which claims to be a science of mind and character is a very serious neglect. It is true that phrenologists have made many valuable suggestions in this department in their treatment of the functions of Language, Tune, and Time, but these remarks are only incidental, and not directed to this department as a separate subject. The value of an exposition of the voice, giving the situation of each physical member; the conditions of vocality; the relative size and position of each vocal member, and the quality of voice produced by each; the manifestation of character in the voice, not in a general way, but specifically, is surely of the utmost importance in the delineation of character. All the organs of the human constitution have their natural language. This language consists of the gestures of the body and the tones of the voice, and all these gestures and tones should be carefully separated and assigned to their respective functions. Much valuable information may be gained

upon this subject from books on Elocution, but the treatment of it by such books is quite empirical, not scientific. It would take too much time to convey any adequate conception of how this department should be worked up. In the present essay, I must therefore defer further comments, with the hope that I may be able to present on another occasion an essay on a system of Elocution and Oratory having its basis in the constitution of man.

He files an objection against the explanation of the organ of Benevolence as given by the phrenologists. In his own system he recognizes an organ of sympathy. I will endeavor by the self-conscious method to meet Bain, not that I think the self-conscious method of investigation is able of itself to settle the question; but as that is the method Bain pursues, I desire to meet him on his own ground. Now, it seems to me at least, that according to self-introspection sympathy is a general power, and not a special instinct. How can we separate sympathy from any power, and make it a distinct instinct? Do we not sympathize with those only who have feelings and sentiments in common with us? Thus man can not sympathize with a monkey, because he can not enter into its feelings. Neither can an infidel sympathize with a spiritualist, because there is no bond of connection. Neither can the virtuous man sympathize with the profane sinner and evil-liver for the same reason. Sympathy depends much upon the power we have of entering into other people's thoughts and feelings, and this power depends upon

the relative number of faculties we have in common. Sympathy in the sense of pity is clearly performed by benevolence. Benevolence is the foundation of philanthropy, and if we admit an organ of Benevolence there is no necessity for an organ of sympathy, for benevolence acting with other faculties will give all that Bain places under sympathy.

BAIN'S ORGANS OF ELOCUTION AND PLOT-INTEREST.

Professor Bain is still more ambitious in his attempts to evolve Phrenology from consciousness. He thinks there ought to be an organ of cadence or elocution.

Now, I was very desirous at first to follow Bain in his views upon the necessity of an organ for elocution and evolve such an organ from my own consciousness, but I thought it only fair to hear those on this matter who might be expected to have a clearer conception of this subject than either Bain or myself, namely, professional elocutionists. I put the question to several well-known professors of the art of elocution, whether there was anything in elocution which might not be accounted for by tune and time. The answer was clear and unequivocal. These gentlemen showed me that the great difference between music and recited speech was a difference of pitch only, the former being discrete and the latter concrete. All the varied harmony of music and intonations of speech depend upon the organs of Tune and Time. Bain's attempt, therefore, to evolve an organ of cadence by the self-conscious method seems to be a

failure. The difference which Bain observed between speech and music must have been the quality of the tones of the voice, although he does not clearly state that to be his view; but if he had made a more thorough observation of great actors and orators, he would have discovered that all the difference in the quality of intonation was due to the peculiar effect of each of the phrenological faculties. The instincts and sentiments have all their effect upon the voice; for example: Secretiveness muffles the voice, its natural expression is a whisper; bereavement is low and plaintive; Veneration soft, subdued, and reverential; Destructiveness is sharp and guttural, and Self-esteem is hard, positive, and dogmatic, while Combateness has abrupt, harsh, emphatic tones; Sublimity gives depth, grandeur, swelling, and profound quality and quantity to the voice, and all the force of enunciation is on a grand scale; Mirthfulness has light, playful tones; and so on, every sentiment or propensity adds a certain coloring to the tones of the voice. It was probably from having observed all the various intonations of the voice which each individual faculty of the human constitution produced, that Bain was led to think that there ought to be an organ of elocution or cadence. But all the functions such an organ could perform can clearly be ascribed to other faculties.

Bain having reached a certain height in his phrenology-self-conscious method does not wish to surrender his elevation or remain there, but spreads his pinions wider and ends by introducing a new organ which he

thinks will be a good addition to the phrenological system, called Plot-interest. Now, I should like to have such an organ made a part of the analysis of the human mind, but I am afraid if its existence depends upon the self-conscious method of investigation, it will never exist. Plot-interest is only the effect of a combination of faculties, as, for example, in a novel the plot-interest depends upon the number and kind of sentiments and propensities excited by the events of the story. Thus benevolence will be aroused by the suffering of the various characters which are described in the story, and will anxiously watch the plot to see if the objects of its interest will be safe. So with the love of the marvelous, all things which are new, strange, and miraculous will be watched by it with intense interest. So with the organ of Cautiousness, dangers and hair-breadth escapes, gloomy caverns, and all kinds of adventures will be interesting to that faculty, and the plot-interest which appeals to it will be powerfully intensified. So Combativeness will be aroused to activity by events of heroism and self-defense, descriptions of battles, etc. Veneration, Hope, Justice, and all the various faculties may be actively aroused by the incidents in the novel, and thus the plot-interest will be rendered intense. The more numerous the organs excited by the events in the novel, the more intense the plot-interest; and besides there is one organ above all others which tends to deepen the plot-interest, the organ of Secretiveness, whose function is the desire to pry into hidden things. Now, the chief point of

interest in a plot is to conceal the true nature and result of the story as much as possible, and concealment is highly delightful to Secretiveness, and much of the interest we have in a highly-drawn plot is due to the excitement of this faculty. Thus we see that plot-interest can be accounted for by the activity, more or less intense, of the sentiments and propensities, singly and in combination, and there is no necessity for a separate organ for plot-interest.

Bain has some valuable suggestions to make upon the sentiment of love of truth. He claims that phrenologists have not developed this sentiment sufficiently, and considers that the organ of Conscientiousness, as set forth by Phrenology, does not cover entirely the domain of love of truth.

It seems to us that Bain does succeed in developing points omitted by the phrenologists in their treatment of this sentiment, but we can not concur with him in his rash statement that Phrenology, if she can make good any of her positions, ought to be able to discover something to indicate his distinctions. A science is not called upon to surrender her established truths because of omissions or imperfections; if this is to be the test of Phrenology, then it is a test which will lay the axe at the root of every science, even at Bain's own system of phreno-self-introspection. Truths are not all discovered at one time or in mass, but one by one. If there is an organ for Love of Truth separate and distinct from any of the innate powers enumerated by Phrenology, time will show. But the statement of Professor Bain that if Phrenol-

ogy can not make good his distinctions she can not make good any of her positions, is a very rash statement, unworthy of the great Edinburgh professor, and he must surely have departed from that quality of character so highly developed among his countrymen, a quality which has gained for them the world-wide reputation of the "canny Scots." While we must in the name of correct scientific investigation refuse to concur with Professor Bain that omissions in any system invalidate or destroy all the truths of that system, yet at the same time we are willing to consider how far his analysis of the sentiment of the love of truth indicates the necessity for a distinct cerebral center. He holds that George Combe's exposition of the function of Conscientiousness is but an ethical exposition, and he then asserts that the love of truth has a signification in the abstract (whatever he means by that) which is different from the ethical. His comments are too long to quote, but his position is, that there is in the sentiment of truth an element of impartiality, a total disregard of conclusions, whether favorable or unfavorable to preconceived notions or to the desires or the emotions. In brief, he means steadfast loyalty to truth for its own sake, which he considers different from moral obligation—the root element as set forth by Combe's treatment of Conscientiousness. Now, whether the function of Conscientiousness by a clearer definition can be made to embrace this abstract conception of truth or not is a very nice question. It may be, however, that the distinction made by Bain is not a sepa-

rate element in the constitution. We question much the statement that there are men who investigate truth with no leaning or prejudice toward some form of that truth. Men, by their training and by constitutional endowment, are prone to consider that the principles which seem evident to them are the only true principles. The various systems of science and philosophy have had their origin because of prejudice or constitutional tendencies. To get at truth in the abstract is a very difficult achievement, and has not yet been accomplished by Bain, or anybody else as far as we know. In fact, truth in the abstract, from its very nature, is undefinable; it belongs to the same genera of conceptions as absolute virtue, goodness, purity, etc. We can only realize such states by contrasting such conceptions with concrete existences. A sentiment for the love of truth in the abstract may be, after all, a visionary sentiment. The preponderance of the truth element not included under the function of Conscientiousness, may be a result of a more harmonious constitutional endowment. Thus, for instance, if we can conceive of a person whose intellectual faculties are in proportion to his emotional and animal faculties, then there will be an approximation to absolute truth in the judgments, thoughts, and conceptions of that individual. This adherence to truth, then, for truth's sake, would come not from any particular organ in the constitution, but from harmonious development of the entire man. In other words, the nearest approach a man can make to correctness of judgment, thought and conception is

made when such a one holds a parliament, as it were, of all the elements in his constitution, and decides after each has had its full voice in the matter. To illustrate this more concretely: suppose a person under the influence of Veneration, which is so fully developed that it is a leading characteristic of his constitution, all his judgments will be biased, more or less, by the promptings of that faculty. If he takes a stand in church matters, he may grasp that side of worship and church authority which appeals to his veneration. Perhaps his conception of true worship is a highly ritualistic service, and in combating for this kind of service, which nourishes but one element in his constitution, he sacrifices truth. The same may be said of all special developments: however much truth they discover in that particular department, such truth will be lacking in universality. Special developments of the innate powers will bias the judgment in favor of those elements, and abstract loyalty to truth can not prevail in such organizations. But suppose a man to exist who has a harmoniously balanced brain, properly trained and educated; he will accept as true only that which appears to satisfy all the cravings of his being. Such truth is the only approximation we, in this world, can make to absolute truth. And in such minds there dwells the quality spoken of by Bain—impartiality of investigation and loyalty to truth for its own sake. If our exposition of this rather obscure metaphysical subject is correct, there does not seem any necessity for any separate innate power distinct from Conscientiousness in the

human constitution, such as Bain sets forth and denominates the Love of Truth. Conscientiousness, with a clearer definition, will sufficiently account for all other elements of Truth.

Bain now passes on to show that the sensibility connected with the fine-arts, or what is called æsthetic pleasure, whether realized by nature or provided for by art, has not received full treatment at the hands of phrenologists. He accuses the phrenologists of treating the fine-art feelings as if they were one, and traces a probable reason for this method of treatment to the prevailing opinion of philosophers in the days of Gall and Spurzheim, that the sentiment of the beautiful was one and indivisible. It is possible that the early fathers did attribute too much to the organ of Ideality. This organ was then not divided into two innate powers as in recent works on Phrenology. The objections urged against Phrenology by Bain in this department, however, are not root errors detrimental to Phrenology as a system, but only confused definition which can easily be remedied. Proportion and harmony enter into all works of art more or less, as into a building, a painting, or a poem. Upon what does this feeling of proportion and harmony depend: on a special fundamental endowment? or is it an element common to all the faculties? The early phrenologists taught that Tune gave the sense of musical concord, Color the feeling of well-assorted tints in painting, Form the susceptibility to fine sculpture and the beauties of the human figure; but Bain asserts they did not tell us what constitutes the pleasure of a fine poem.

The solution of the difficulty is simply to be found in a proper comprehension of what the fine-art feelings are. We can not prove that any one of these feelings depends upon one innate faculty alone. In the Fine-arts a reproduction of nature, animate and inanimate, is sought; hence the faculties employed by an artist will be as various as the object selected. It would be impossible, for instance, to say that sculpture depended upon a feeling of symmetry, for that feeling is not individual—it is a general feeling, and belongs probably as much to the intellect as to the emotive nature; but the basis of sculpture may be found in a just perception of forms and outlines of objects. The sculptor's aim is to transfer these living outlines into marble, and here the intellect will come in, supplying comparison and the ability to construct or reproduce.

An epic poem like "Paradise Lost" or Homer's "Iliad," is not the product of any one faculty; every organ of the mind supplies its quota. The distinguishing feature, however, is the presence of the sublime or beautiful. The material supplied by the intellect and emotive nature is colored by the organ of Sublimity, or Ideality, and this coloring is what enables us to say whether a poem is an epic, a satire, or an ordinary poem. Ideality, or the love of the beautiful, is a feeling which displays itself in the love for perfection. It may produce then that exquisite thrill which one feels on beholding a beautiful work of art. Ideality and Sublimity are the organs which cast an imaginative lustre upon all works of art,

whether they belong to literature, sculpture, or painting. But Ideality and Sublimity could not produce these works alone; other organs must come in to supply the material and execution. When we say that Ideality and Sublimity are necessary to a great orator, we do not mean that they are all that constitutes an orator, but that they are powerful elements in successful oratory. It is, therefore, unfair on the part of Bain to say that Phrenology offers the organ of Ideality as an explanation of what constitutes an orator. No one organ, in general, is capable of explaining all that belongs to arts, so wide in their scope as the arts of poetry and oratory, but one or two organs may shape the direction or may color the whole bent of an individual's powers when employed in any one of these arts. To discover special fundamental powers for each of the fine-arts would only lead to the greatest piece of patchwork possible to be conceived or imagined, and it is strange that Bain should ever have entertained a notion that there might be a special sense of harmony for each of the fine-arts. A separate cerebral center which takes cognizance of proportion and harmony might be granted, but it would be under protest, for it might be proved by self-introspection that such a sense was an element in every innate power of the human constitution, or it might be said it was a purely intellectual element, perhaps a characteristic of the faculty of Comparison. But a general sense of harmony would not be objectionable, whereas a special sense for each of the fine-arts would be a far greater patchwork, more full of

confused cross-divisions than ever emanated from a phrenologist's brain. If we examine this feeling of proportion and harmony displayed in the fine-arts, we can analyze its elements, and show that no matter what department, whether music, oratory, sculpture, painting, or drawing, they all have the same characteristics. The basis of all is nature. A work of art is out of proportion when it departs in contour from the natural object. If a painting depends upon shadows, light and heavy in combination, so does music depend upon alternate notes of different compass and volume. In a poem the versification, in order to be harmonious, must have a succession of accented and unaccented syllables, and the grand and fascinating melody of prose or verse recited by an actor or orator, depends upon a harmonious succession of emphasis and variation of voice—light and heavy, lively or solemn, gay or swelling, and all the variety of inflection. But throughout all these, that which constitutes harmony is the correct portrait of nature.

Now, I will leave it to the reader whether special fundamental powers must be established for each of the Fine-Arts or a general sense of harmony, or whether the present phrenological analysis is sufficient to account for all the sensibilities experienced in the contemplation of the Fine-Arts; and if some more organs must be added to the phrenological scheme, we shall welcome them. But remember, in all his endeavors to produce a system of Phrenology by the self-introspective method only, Bain has not been always successful. He leaves the Fine-Art question

nearly as he found it, without adding much by way of demonstrated fact or clearer definition. He is more successful, however, in his discussion of a general faculty of Memory. He asserts, and George Combe favors the same idea, that there is a power of retentiveness which differs in individuals. This we have observed ourselves: there is a difference in the single element of memory, among school-boys, for instance. Boys apparently with the same endowments have good memories for almost everything. They may show special aptitudes for some studies, but they seem to be able to learn almost everything. These scholars are regarded as brilliant, and generally stand at the head of their class, and graduate with honor; but it often happens that they do not become remarkable in after-life. Whereas some students who have received low standard because they did not have this general memory, have far outstripped their companions in active life. There is also a difference which is of the same nature between men of genius and men of learning. There is a class of men who are not able to take ideas verbatim; when they repeat it is colored more or less by thoughts and phraseology of their own. When asked to give the contents of a book they have been reading, they give the substance colored over by their own original reflections. The man of learning, on the other hand, seems almost incapable of reproduction. He requires his commentaries, dictionaries, his book of synonymes, and reference books constantly beside him, and his production is a patchwork of other men's thoughts and cribbed quo-

tations. Whether we can trace these differences to constitutional endowment is a question. The temperaments may have much to do with these differences. Thus, for instance, the Motive Temperament is not so productive of originality of thought. Men of that development are more prone to acquire knowledge than to think for themselves. They are capable of following out the details of a plan devised by somebody else. They are men for the field, and become mere machines under the direction of superior minds. The Mental Temperament we know can acquire knowledge better than any other, and those students who show remarkable capacity for almost everything may have the Mental Temperament well developed.

But it is to be regretted that Prof. Bain has not anywhere stated the exact phrenological make-up of the students who showed various powers, some more retentive than others. In the absence of the exact phrenological status of such cases, it would be idle to seek a solution. Perhaps the solution exists in some of the already known principles of Phrenology; but as the cases have not come under phrenological inspection, it is difficult to discuss the question. Bain is not explicit, but speaks of the students he observed as a whole. I, for my part, in all my school career, have never met a class of students whose phrenological make-up was about the same for all, and yet some have displayed remarkable powers of retentiveness, and others not. There are hardly two persons phrenologically alike in every respect. It would

have been more satisfactory if Bain had given us a prospectus of the cases he had observed, then we would be able to judge and probably explain the seeming discrepancies. Still, however, I am persuaded that there is a characteristic power of retentiveness displayed by some which seems to be out of proportion to their development; but the problem is not incapable of solution—it only requires a little patient investigation of the facts. With respect to genius and application, there is a vast difference between some minds. This difference may be accounted for in part by methods of study. There are two ways of acquiring truth: (1) By learning every fact or principle in detail. (2) By seizing upon the vital principles and working out the details for one's self.

The first principle is characteristic of the man of learning, the second of the man of genius. Those who pursue the first method study with avidity; they delight in acquiring other men's thoughts; they employ all their time in such acquisitions, and rarely stop to think or make original reflections on the matter acquired. They are apt in class-room, and gain the esteem of their professors because they have acquired the information desired. These students are generally favorites with school committees and all the ornamental paraphernalia of colleges.

Those who study after the second method do not display brilliancy in acquisition, but they are far more original. They know less, but are a great deal wiser than the first class. They are not popular with their professors, because they do not give the information

exactly as is wanted, but they oftentimes bring more honor upon the school when they enter upon public life than the others, because they have acquired the power of original thought.

Now, it requires time for both of these processes ; it stands in reason, if a person gives himself up to the acquisition of other men's thoughts, he can not have time for original reflection ; so, on the other hand, if a person is engrossed with original reflections, he can not acquire the task before him. Students who belong to the second class will be regarded as less brilliant than those of the first class ; whereas it is a brilliancy which differs in kind, not in degree. The second are really the most gifted after all. This would explain in part what Bain has noticed. And all that we have stated is borne out by fact. It is seldom that the same mind is capable of excelling in both fields ; there have been some noble exceptions, but they are few. The general law is, that if a person spends his time in acquiring other men's thoughts he will not have time to develop his own.

The best way to study is to strike out a golden mean between these two methods. Study other men's thoughts only to get the principles, not the details ; to stimulate your own thought, not to slavishly copy theirs. This process may be longer than the other, but it will be more satisfactory in the end.

The closing remarks by Prof. Bain on the Omissions of Phrenology are hardly applicable to that science as studied to-day. The assertion that Phrenology makes no allowance for a person's acquisition,

is not by any means correct. There is nothing inherent in the nature of the science prohibiting such an estimate. Indeed, phrenologists do assert that education does make a vast difference in the mental aptitudes of men. Educated faculties are always superior to uneducated. Nor is the power and activity gained by faculties, through training, beyond estimation, as Bain asserts. There are indications which show pretty accurately whether certain mental powers have been educated or not.

Bain ought to remember in this connection the physiological fact, that training develops in two ways, by increasing the bulk of the muscle or organ exercised, or the quality of its texture. And we can estimate the probable extent of training by the increased size or texture of such muscles or organs. So it is with the training of cerebral centers, they increase in size or fineness of quality by exercise, and this increase is not altogether hidden from sight; movements in the cerebrum affect the contour of the skull. The bony encasement directly over an organ swells out or becomes sharper in outline after years of exercise of that organ. We are seldom at a loss to select out those who have been educated from those who have not, by the sharpness of the general outline of skull and face. We have noticed students who have come into Harvard in their Freshman year, and have undertaken one line of studies—for instance, those sciences which call for the employment of the observing faculties exclusively—that the organs called the knowing, or observing faculties, have perceptibly in-

creased and become sharper in outline. But whatever the reason may be, we can generally separate the educated from the uneducated by their personal appearance. We could not, however, tell the extent or scope of one's acquisitions, but we ought not to expect such a capacity from the science of Phrenology. Phrenology is not a sort of second sight, it is a real science guided by natural principles, and if she failed to measure accurately the extent of one's acquired knowledge, it would not be anything wonderful. No human science is possessed of such a power, neither metaphysical nor experimental philosophy; how, then, should the absence of such a capacity be held out as an objection to Phrenology? All that Phrenology ought to be expected to do in such cases, would be to institute inquiries of the persons examined as to the extent of their education, and draw up an analysis of their character, giving due allowance for such acquisitions. We must say in closing this subject, that we have followed Bain carefully, and noted each of the omissions in the science of Phrenology which he points out, without finding a single principle which would invalidate any of the vital truths of Phrenology. Phrenology as a science does not stand or fall upon what she has accepted or omitted. Omissions and hasty acceptances are characteristic of all sciences in their infancy. If she has received as proved one or more fundamental powers of the human mind which may be proved as not fundamental, then she can give up such powers without detriment at all to her position as a science of the human mind.

If, on the other hand, she has omitted any fundamental faculty from her diagnosis of character, such omission is no more fatal to her than to any of her sister sciences; she can fill up the vacancy when good proof is given that the omitted power is a real fundamental element. The attempt, therefore, to break down Phrenology as a science of mind and character, by pointing out certain cross-divisions in *her* classification or omissions of fundamental powers, is an effort displaying extreme narrowness of conception, and unworthy of a scientific and philosophic mind.

BAIN'S OWN SYSTEM.

We will now take up Bain's own system and see if he has succeeded any better in his analysis of mind and character than the phrenologists. He divides the mind into threefold divisions—emotion, volition, and intellect. We have no objection to take these as general conceptions, embracing under each fundamental powers. His treatment of spontaneous energy, though it embraces much which comes under the discussion of the temperaments in phrenological works, yet presents many valuable thoughts worthy to be embraced in a book on the science of character. There are points where we would disagree with him, but we can not discuss them in detail. Bain, in an early part of his work on the study of character, objected to what he called the clumsy device of the temperaments borrowed from Physiology by Phrenology. We agree with him that the old classification of the temperaments was a rather cumbersome affair;

but we regret to say that we can not accept his classification, because not founded upon a physiological basis. Temperaments have relation to the physical body. They are names given to certain states of the physical constitution, and should therefore have a name affixed to them, indicating what particular state or condition of the constitution they signify. Now the case with Bain is this: he has no clearly defined temperament but one, and that one he calls the emotional temperament. Under the term "spontaneous energy" he seems to include the muscular and mental systems, although he nowhere explicitly calls them temperaments. We will therefore refrain from any criticism on his subject of spontaneous energy. But when Bain denominates a certain state or condition of constitution by the name emotional temperament, he commits a very negligent and unscientific error in scientific classification. Temperaments are certain states or conditions of the body, as I have said before, and therefore should have a physical basis. The various organs of the human body should be made the basis, and not any emotional product of these organs. There are three grand divisions of the human constitution—nerves and brain matter, bones and muscles, stomach and lungs. The preponderance of one or more of these organs shapes the temperament. Thus a person in whom the bones and muscles predominate will have a different build or constitution from one whose lungs or brain are in the ascendant. A classification of temperaments made on the actual constituents of the physical body is far

more accurate than one made upon any product of these constituents ; so the classification of the temperaments, as set forth by later phrenologists, is far more accurate than that which Bain sets forth. The temperament which Professor Bain calls the emotional temperament, is far better classified under the name vital. Emotion is only a product of temperament, and is not a physical element of the constitution, and, in fact, it might be said that emotion belonged in a certain measure to all the temperaments—to the mental and motive. The vital is the more emotional temperament, not because there is a physical element of emotion in it, but because the conditions are more favorable to the development of emotion. The lack of accuracy and definite statement on account of this unfortunate classification on the part of Bain is perceptible throughout his whole chapter on the emotional temperament. He is treating a characteristic of a temperament as a temperament itself, and hence he fails to grasp all that should be included under a temperament.

His chapter on special emotions or tastes will now occupy us. All his remarks on the pleasures of muscular exercise, sex, and organic sensibility are well worthy of consideration ; so also are those on taste, smell, touch, hearing, and sight.

Under the head of special emotions Bain discusses what he considers an elementary fundamental power of the human mind under the designation of tender emotion. In an earlier part of his book he is disposed to regard Adhesiveness, Philoprogenitiveness,

Benevolence, and even part of the function of Amativeness as included under the designation, tender emotion, as one distinct innate faculty of the constitution. If Bain had merely suggested the term tender emotion as a sort of generic term under which we could group the functions of all these organs for convenience of statement, because they may be shown to possess one element in common, namely, tender affection, we should be disposed to adopt the term; but to group together three or more distinct functions of the mind under such a loose, vague, and general concept as tender emotion, and call it a single innate faculty, is hardly compatible with accurate classification of philosophy or science, and least of all is it germane to the exact demands of phrenological classification. When phrenologists arranged and perfected their nomenclature, they sought to assign names to each innate power designative of their function. In all their classification, as it appeared perfected by George Combe and others, there is not to be found so vague and general a term as that employed by Bain, "tender emotion." To take a world-wide term like emotion and circumscribe its meaning by another still more wide in its application, is a piece of patchwork which Phrenology has not been guilty of. Take these terms as they present themselves, and what meaning do they convey? Emotion, in the first place, is a general concept; it is like the terms memory, conception, perception (which, by the way, the self-introspective school also kindly supplied as fundamental powers), capable of being resolved into innu-

merable kinds of emotion. There is the emotion of Amativeness, Friendship, Veneration, Self-esteem, Approbation, Hope, etc. We have a distinct idea of an emotion which springs from the function of a definite organ like Philoprogenitiveness or Amativeness; but what in the name of philosophical classification does the term tender emotion convey? There is nothing specific about the term at all. The quality of tenderness may enter as an element into any one of the functions of the primitive organs. There is even an element, tenderness, in Ideality—a beautiful picture will awaken a tender feeling; and Bain must admit that in the function of his organ of Sympathy there is an element of tenderness. To circumscribe the field of affections by such a wide, loose term as tender emotion is a gross error in classification, unpardonable in a philosopher like Bain, who has laboriously endeavored to pull down the phrenological classification. This term of Bain's is not an advance in accuracy of statement, but is rather a retrogression; it is a going back to the vague generalities of the old metaphysical school. What we want in a diagnosis of character is individual terms of specific application. Nobody in analyzing character could tell by the term tender emotion whether the person was affectionate toward his wife, children, friends, humanity, or an inanimate object.

The distinct elements of character which Bain has grouped under this vague term are of such importance that a correct and accurate exposition of a person's character could not be given without a degree of circumlocution entirely unnecessary; and, besides, if

these powers are but one faculty, by what method shall we ascertain whether a person is philanthropic, amative, parental, conjugal, or social? Five distinct types of character are necessarily cut off from all adequate means of ascertainment, if Bain is correct. In self-conscious reflection there may be an element which joins all these functions—an element, for instance, of tender emotion; but are there not separate individual characteristic elements in each which colors the emotion and makes each an innate power? Surely the feeling stirred up by the love for children is different from the amative, the benevolent, or the social feeling. When I love my friend, I am not experiencing my love for children; and when I love my wife, I have not a feeling of sociability merely. Nor can association, reciprocal relation, or any such inventions of the metaphysical school account for the innate characteristic element which separates each of these emotions. The selfish hope of gaining benefit may make men cling to each other in their business relations, but does this produce friendship-love, pure and simple? Does it not often happen that those whom we love can render us no assistance at all? When a friend is dead, does the survivor who loved him feel a thrill of joy whenever his name is mentioned because he will gain some benefit from him? Bain's conception of reciprocal relation may account for a sort of business friendship, but never for that undying adherence to friends through weal or woe. The poem called "Palemon and Arcite" could never have been produced if its author had entertained the same low

estimate of friendship which Bain entertains; and the beautiful description of Saul and Jonathan, who were lovely and pleasant in their lives and in death they were not divided, would utterly lose its charm and beauty if we could entertain for a moment that their love for each other was simply one of mutual benefit.

Self-disinterested love of friends is a noble sentiment in our constitution, and has displayed itself in all ages. History supplies many examples. When Flora Macdonald accompanied the exiled Prince Charles Stuart through all his painful marches and tenderly watched him amid dangers and suffering, was she gaining anything as reward for all her devotion to a fallen cause? The friendship element is different from the benevolent. In the first there is a feeling of joy and loyalty, in the second of pity merely. I love my friend with a gladsome heart, but pity a suffering human being with a thrill of sadness. A mother loves her children with a sort of parental pride; there is no element of pity, it is a feeling of joy and exultation. Philoprogenitiveness I have discussed before, and therefore I will not dwell upon it. Benevolence we proved to be an innate power and capable of performing all the functions characteristic of Bain's organ of Sympathy. Adhesiveness there is every reason, even by the self-introspective method, for regarding as a distinct power of the mind. Disinterested love for one in preference to all is an element in Adhesiveness. Benevolence loves all, and more especially the unfortunate. Adhesiveness is a factor, but not a product of sociability. When we

consider observed facts according to phrenological investigation, Bain's organ of tender emotion separates itself into the distinct functions of Adhesiveness, Philoprogenitiveness, and Benevolence. There is every reason for supposing these are distinct faculties, because they are found developed in different degrees in different persons. Cases are reported where persons on the death of their friend have refused to be comforted, and have finally died with grief at the loss. Cases of disinterested friendship are numerous.

Under the term Irascibility, Bain describes the essential function of the phrenological organ of Destructiveness, and regards the faculty as innate. There is no necessity to dwell upon it.

CONCESSIONS OF BAIN.

Professor Bain in his book on the "Study of Character" makes many concessions to Phrenology which are highly creditable to that science. Some of these we will briefly state :

(1). "The phrenologists proved by an accumulation of unquestionable evidence the real connection existing between brain and mind. All other systems of investigating the mind, metaphysical, physiological, and anatomical, having failed to show the relationship existing between natural organs and the mind."

(2). "They brought into prominence, as an important element of ascertaining the power of any given function of the mind, the doctrine that size, all other

things being equal, is the measure of power which they established by innumerable proofs."

(3). "All theorists previous to Phrenology could not prove their principles by appeals to observed facts; they could not show a relationship existing between cerebral organs and the function of the elementary powers they had analyzed in their own consciousness. Phrenology not only showed herself capable of doing this, but she became the first and only science of character."*

The value of cerebral development, as indicating the seat of the faculties of mind, is acknowledged by Bain, and for this reason he is willing to regard Phrenology as not only a science and art of character, but also a science of mind. This ought to be a sufficient answer to those who maintain that Phrenology is but an art. If a philosopher of such high reputation as Professor Bain, after an extensive and critical survey of Phrenology, makes such a concession, it ought surely to weigh as strong evidence in the minds of those who are prejudiced against Phrenology.

(4). "If it can be proved that each fundamental power in the human constitution has its own compartment or cerebral center in the brain, then such fundamental powers are proved to be innate beyond dispute."†

Now, is not this a remarkable concession? It grants the whole position of Phrenology, but I am sorry to say that Bain loses sight of this principle,

* Bain's "Study of Character."

† *Ibid.*

the truth of which he admits in the subsequent discussion of the phrenological organs.

(5). "The phrenological analysis obtained by its method of investigation revolutionized the analysis of mind as then advocated by philosophy."

(6). "If Phrenology is true, she has brought to a rapid and certain conclusion the tedious and unproductive labors of the other inquirers. Upon a method of a diagnosis they have built a science of character, and on that a science of mind."

(7). "It may be admitted that the connection thus shown to exist between the size of a certain part of the skull, and an excessive manifestation (say) of fear, might be usefully employed in aiding us to regulate our intercourse with our fellow-men, to select individuals for particular offices, to choose professions for young people, to shape appropriately our instructions and discipline in the education of children, and, in a word, to appreciate the character of both ourselves and others."*

MR. SAMUEL BAILEY AS QUOTED BY BAIN.

Bailey, as quoted by Bain, proceeds to narrow the province of Phrenology to the simple method of inspecting the brain. The classification of the faculties and the description of their various states of activity he regards as not within the province of Phrenology, but of the self-introspective school. But this is entirely unwarrantable; there is no reason why a peculiarity of a science should be seized upon as the

* Bain's "Study of Character."

only principle of that science. When facts are observed, the human mind has the privilege to reflect upon them, and this privilege we claim does not belong to any school of philosophy whatever. That Bailey (and Bain agrees with him) should strip Phrenology of the power of reflecting, weighing, and judging the evidence presented by the observation and senses, has no real ground of procedure, except the manifest zeal of Bailey to make out as good a field as possible for the metaphysical school. Phrenologists do not ignore the value of the reflective faculties in the investigation of truth. They employed them in originating the terms and definitions of the phrenological classification, and also in sifting the evidence presented to them by experiment and observation. What they protested against was not the self-introspective or metaphysical process of investigating mind when founded upon facts presented by observation, but a peculiar doctrine emphasized by that school that the mind could only be studied by self-introspection. They claimed that mental phenomena were subject to observation as well as reflection. The phrenological school, so far from ignoring self-conscious investigation, oftentimes makes use of its methods.

(8). "Phrenology emphasized the importance of studying the nervous structure in connection with mental characteristics. It brought to light many curious facts in human nature, and showed by numerous examples that there are original differences in the constitutional qualities of individuals and races."

(9). "Although it is true all these facts might have been observed without reference to the brain or its configuration, or its exterior covering, still to Phrenology, as actually prosecuted, must be awarded the merit of strongly directing the attention to many of them, and also of hastening, confirming, and disseminating views regarding the constitution of human nature, which, notwithstanding they were once warmly contested, and are yet not universally received, the philosophical observer, without such assistance, would doubtless have finally reached."*

This last statement is very questionable. The philosophic mind has not made much advance in analyzing the elementary or innate powers of the human constitution even since the days of Gall. The analysis of mind by modern schools of thought, while it embraces many of the faculties as found in phrenological classification, has still numerous elements in it which are not distinct fundamental powers, but simply general conceptions; in fact, the self-introspective school has displayed remarkable skill in ascertaining general terms or processes of the mind, but it has failed to see the individual elements underlying these general terms. Still, any system claiming to be a complete science of the mind can not dispense with the self-introspective method. There are laws, habits, relations, etc., which, while they do not create innate powers, nevertheless explain how the fundamental powers act. Such laws

* Bain's "Study of Character."

as association, habit, and most important of all, Bain's three general processes of the mind, called by him Discrimination, Retentiveness, and Similarity, ought to be embodied in the science of mind, as throwing light upon the general activity of the separate organs. There is no reason why Phrenology should not perfect herself by drawing not only from psychology, but also from physiology and experimental philosophy, demonstrated principles relative to the human mind.

When Phrenology first began her labors, she presented the most liberal field of investigation possible at the time, nor has she receded in modern times from that all-embracing spirit. Her investigations are still conducted upon the broad principles of psychology, physiology, and physiognomy. The only difference is this: the science of mind, like all other sciences, has branched out into many departments. Men of special talent rule each of these departments. There are great scholars in the psychological and also in the experimental schools. These schools, in their ignorance of phrenological principles, sometimes present a hostile front to Phrenology; but, after all, if Phrenology is true to the principles of her great founders, she can receive truth from all of these schools without losing a particle of honor. As the case now stands, she is still the only science of the mind which makes an approximate endeavor to embrace the three great elements of investigation, the triad of all sciences: experiment, observation, and reflection.

But the most important concession made by Pro-

fessor Bain to Phrenology is expressed in a foot-note on page 298 of his book on the "Study of Character." This foot-note is the more valuable because it is not given as a concession, but as a remark. Bain has been discussing at considerable length the intellectual element of disinterestedness, and finds himself involved in a rather difficult situation. The most subtle distinctions have been made by him without arriving at any definite conclusion, and it would seem in a fit of perplexity he subjoins the following note: "In a former chapter I conceded to Phrenology the likelihood of regarding the tender-hearted disposition, when generalized to the utmost, as an ultimate fact of the constitution, for which a local habitation might reasonably be looked for in the brain. *In a matter where the psychological analysis is subtle and obscure, and where the sentiment is one of great prominence in the mind, the well-established concurrence of a cerebral development, with instances of the quality in a high degree, ought not to be rashly set aside.*"

These words sound like a virtual surrender of the whole point at issue. In the first part of his book, Bain strongly asserts that the self-conscious method of investigation is capable in itself of supplying a complete and perfect analysis of the human mind; and he declares emphatically that he will not subject himself to a process of investigation so laborious as that of Phrenology, however correct it may be. What does he mean now by this foot-note? It occurs almost at the close of his book, after he has waded

through a long, painful, metaphysical discussion of what are and what are not primitive functions. Has he indeed discovered the insufficiency of the self-conscious method to make a clear and definite analysis of the human mind, or does he wish to escape from its subtilty and obscurity by an appeal to observed facts? Both motives are evident from a consideration of the meaning of the note. Bain has, indeed, reached the *ultima thule* of the metaphysical school; he has experienced its perplexities, and volunteers a piece of solid advice to his metaphysical brethren: "In a matter where the psychological analysis is *subtile* and *obscure*, and where the sentiment is one of *great prominence* in the mind." Mark this: Bain acknowledges that the psychological analysis may be subtile and obscure, even where the sentiment discussed is one of great prominence in the mind. Was there ever an acknowledgment so crushingly and overwhelmingly negative of any method of investigation? If the psychological analysis is obscure even where there is light, how utterly muddy it must be where there is no light. If the self-introspective method has reached a point where subtilty and obscurity stay all further progress, even when the subject of its investigation is not only present, but of great prominence, how, in the name of common-sense, can it lay claim to be an efficient process in the closer states of analysis? But Bain does not stop here; he presents a method of escape from this obscurity; and what do you think that method is? Why, when the psychological (Bain's own method) has failed you are

to employ Gall's method, the phrenological method. Here are his very words: "In such cases the well-established *concurrence* of a *cerebral* development, with instances of the *quality* in a high degree, ought not to be rashly set aside." Now, there are two great aspects of this admission which are peculiarly interesting and remarkable. In the first place, the metaphysical method may become obscure,—there are truths of analysis which it can not fathom; and secondly, the phrenological system of investigation, previously condemned as an insufficient method, is now recommended, not only as a guide to analysis, but as capable of deciding the most obscure and delicate questions in the analysis of the mind. Was there ever such a surrender of principles involved? Bain has, indeed, forgotten his resolution to evolve a mental analysis from the depths of the metaphysical consciousness, and begins to see a gleam of hope shining through the labyrinth of perplexing subtilities, and that ray is the discarded phrenological method of investigation. Now, it is a just inference, from the concession made in this note of Professor Bain, that if the phrenological method of investigating the mind can be employed successfully to establish obscure points of analysis, it ought to be even more successful where there is no obscurity.

It may be thought that in this essay I should meet the various objections to Phrenology which from time to time have been urged against it, but this would be an endless task. The objections against this science generally spring from those who are ignorant of its

principles or who have become acquainted with Phrenology through its opponents and have therefore obtained a stock of misrepresentations, false quotations, and hackneyed, puerile, and contemptible objections. I can not answer such objections in detail; suffice it to say, that the founders of Phrenology were perfectly capable of looking out for all the little side issues of the science. Let no one suppose, however, that I have not seen the objections urged against Phrenology by such men as Dalton, Carpenter, Bastian, and Lewes—the objections of these men are all easily met; some of them are the product of sheer ignorance or mere misrepresentation. Dalton has withdrawn his objection. Sir William Hamilton is supposed to have annihilated Phrenology. Well, I have no doubt but that Sir William would have annihilated Phrenology if he could, but nevertheless Hamilton is dead and Phrenology is still alive, and I venture to say that all the William Hamiltons that ever lived could not annihilate Phrenology. It is not necessary to discuss Hamilton's objections, since the points at issue between the phrenologists and Hamilton were long ago decided in favor of the former by modern physiology and anatomy.

CONCLUSION.

The object of this essay has been to discover, if possible, the true basis for a science of Mind and Character. We laid down as prerequisites, in investigating the mind, certain definite principles which we considered capable of embracing man's entire

constitution. We examined the claims of the three great branches of mental science—Metaphysics, now called Psychology (perhaps, because under its old name it received so many wounds from Phrenology that it is wisdom to beget, at least, a new name), Experimental Philosophy, and Phrenology. After a careful consideration of the claims of each, we gave in our adherence to Phrenology—not because we consider that science complete, not because there are no imperfections in her classification, not because she has made an exhaustive analysis of mind and character, or has accomplished a complete enumeration of all the mental processes, general and specific, but because she is really the only science which has fulfilled, as far as possible, the principles which we regard as fundamental to a science of mind and character. We are not blind to the valuable light thrown upon the mind by the modern school of psychology, and should strongly urge upon phrenologists the necessity of incorporating in their science of mind what is clearly demonstrated by this school. It is a revelation of history, no matter how inconceivable it may be to the minds of some, that Phrenology has excelled psychology even in that for which the latter always prided herself—the capacity to make close, hair-splitting distinctions. The establishment of primitive powers—and psychology acknowledges many of those powers to be, indeed, innate in the constitution—was chiefly the work of Phrenology. The Scottish school of metaphysics, comprising such men as Dugald Stewart and Brown, did make some approach toward

establishing primitive faculties, but their work in this direction bears no comparison to the achievements of Phrenology. The psychological school, on the other hand, has shown a power of analysis, more especially since the advent of Phrenology, of the general processes of mind. Their laws of association, habit, and more especially Bain's intellectual processes called Discrimination, Retentiveness, and Similarity, throw much light upon the subject of how the individual organs act, but they do not reveal primitive functions. It is a curious fact that the metaphysical faculty has made discoveries almost exclusively in the generalizing domain, not in the specific. In its scope of operation, it seems better able to detect the general or universal rather than the specific or individual. Observation and experiment, on the other hand, take hold of the individual; hence all sciences have approached perfection in details in proportion as they have subjected themselves to observation or experiment. The phrenological school, on the other hand, has employed both observation, experiment, and psychology, and hence her great success in analyzing the mind and character. While Phrenology keeps in view the three grand methods of studying man—psychological, physiological, and physiognomical—she will continue to be the true basis for the science of mind and character. There can be no narrowness in her development, for she is at liberty to embrace truth from every region of investigation. Her founders, while holding tenaciously to all that was peculiar to her, yet seized as her legitimate property

all that was proven by the metaphysical or experimental methods. If her supporters continue to do the same, there can be no fears for the future of Phrenology. A science so wide in its scope is bound to command attention, if not of specialists, at least of the intelligent public.

In the building up of a complete science of mind, Phrenology may have to give up some things, and she may have to embrace truths from the psychological and experimental schools, but she will not lose her distinctive character. Suppose, for instance, that the metaphysical school supplies her with general terms and descriptions of mental processes which are matters of self-introspection, she will only be enriched by the process; and suppose that the experimental school supplies a more minute knowledge of brain structure, such knowledge can not possibly eclipse her honor. The investigations carried on by this school at the present time into the structure of the individual cells composing the convolutions of the brain, which are the seats of the functions discovered by Phrenology, can not overthrow Phrenology, but will give a more minute knowledge of the cerebral structure. If by experiment it can be proved that each cell responds to a certain distinct feeling, and that cells of the same or generic feelings are grouped together in bunches or centers, this would be but a confirmation of the great truth promulgated by Phrenology, that mental functions depend upon cerebral centers for their manifestation. Now, after these cells are grouped together in convolutions, clearly

the only method of observing them in the human mind is by the phrenological method. The only way to make a practical application of an analysis of the human mind to acquire a knowledge of character, is by the phrenological method. After the last item has been added to the knowledge of brain or body by the psychological or experimental school, the only way to apply this perfected knowledge to the human subject, in order to build up a science of character, is by the phrenological method, and if that method proves a failure, then we can never hope to behold a science of character. But there is nothing to indicate a failure on the part of Phrenology ; so far, she is the only science of character, and her history in that respect is one of triumph. That the science of mind and character may soon reach its perfection is my earnest wish.



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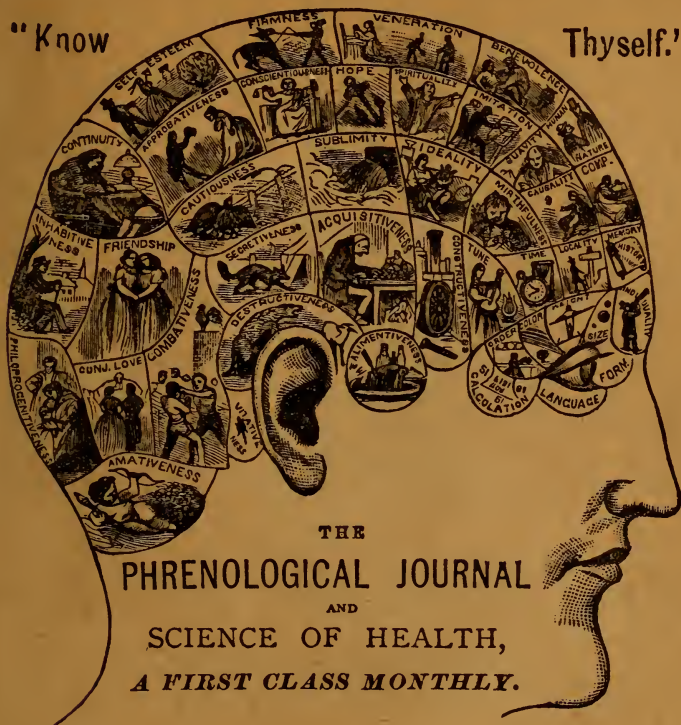
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